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DEQ - RRD
LANSING DISTRICT OFFICE

21 January 2004

Mr. James Innes
Michigan Department of Environmental Quality-RRD
P.O. Box 30242
Lansing, MI 48909

Work Order No.: 01138.079.010.0030

Re: Fourth Annual Groundwater Sampling and Methane Monitoring Report Including Additional Investigations
Linden Road Landfill Site
Flint Township, Michigan

Dear Mr. Innes:

Weston Solutions, Inc. (WESTON®), on behalf of General Motors Corporation (GM), has completed the fourth annual groundwater sampling and methane monitoring activities at the Linden Road Landfill site located in Flint Township, Michigan. The groundwater sampling was performed to evaluate the groundwater quality after the placement of the soil cover system in Parcel # 1, as required by the Operation and Maintenance (O&M) Plan for the Linden Road Landfill site dated April 1999. The baseline groundwater sampling and the initial methane monitoring activities were completed in October 1999 and the findings were documented in a report dated 20 December 1999 submitted to the Michigan Department of Environmental Quality (MDEQ). The results of previous annual groundwater sampling events were documented in letter reports to MDEQ dated 9 January 2001, 11 January 2002, and 5 December 2002.

Based on the December 2003 annual groundwater sampling event results, MDEQ requested additional investigations be conducted to delineate the extent of groundwater contamination observed in well MW-03S, where vinyl chloride was found to exceed Generic Residential Drinking Water Criteria. This was documented in a letter dated 18 December 2002 from MDEQ to GM.

The following letter report presents the results of the fourth annual groundwater sampling and methane monitoring activities, as well as the results of the focused investigation to evaluate the extent of vinyl chloride in groundwater downgradient of MW-03S.

FOURTH ANNUAL GROUNDWATER SAMPLING

WESTON personnel conducted groundwater sampling on 6 November 2003. The groundwater samples were collected from eight shallow groundwater-monitoring wells on site (MW-01S, MW-03S, MW-05S, MW-06S, MW-10S, MW-11S, MW-12S, and MW-13S). PZ-01 and MW-07S were found to be dry, therefore no sample was collected from these locations.

The attached Figure 1 shows the locations of groundwater-monitoring wells. A single groundwater sample was collected from each of the eight shallow groundwater monitoring wells.

A quality control (QC) field duplicate sample was also collected from monitoring well MW-5S for quality assurance/quality control (QA/QC) purposes. Sampling and shipping procedures were consistent with those established in the sampling plan for the site. Temperature, conductivity, and pH measurements were recorded during sampling. A minimum of three times the volume of water present in each well were purged prior to sampling.

Merit Laboratories of East Lansing, Michigan, analyzed the samples for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), "Michigan Ten Metals," and polychlorinated biphenyls (PCBs). A WESTON chemist validated the analytical data in accordance with United States Environmental Protection Agency (U.S. EPA) data validation procedures.

Table 1 presents a summary of detected constituents and their respective concentrations for each sample collected during the fourth annual sampling event. Table 1 also compares the concentrations of the detected constituents in the groundwater samples to the MDEQ Generic Drinking Water Criteria for residential and industrial/commercial categories. A copy of the complete laboratory report, including laboratory QA/QC data and chain-of-custody documentation, is presented in Attachment A. Field note s are presented in Attachment B.

Additionally, in accordance with comments received from MDEQ in a letter dated 19 August 2002, Table 1 also includes a summary of detected constituents by location and date sampled since implementation of the Remedial Action Plan.

Among the VOCs detected during the fourth annual sampling event, trichloroethene (TCE), cis-1,2-dichloroethene, and vinyl chloride were detected at levels exceeding their respective MDEQ Generic Drinking Water Criteria. Each of these constituents was detected above drinking water criteria in monitoring well MW-01S. TCE exceeded drinking water criteria in MW-05S. It should be noted that both the monitoring wells MW-01S and MW-05S are located along the western property boundary and upgradient to the site with respect to groundwater flow direction. Presence of VOCs in these wells has been documented in past sampling events and is believed to be migrating from the adjacent property to the west.

Vinyl chloride was found to exceed its drinking water criteria in MW-03S during the current sampling round, as well as previous rounds (see Table 1). MW-03S is located in the southeastern corner of the property in the vicinity of the former oil disposal pit. Vinyl chloride was first detected in this well during the second annual sampling event (October 2001) at a level of 0.023 mg/L, which was above the drinking water criteria for this compound. Based on these results, two additional samples were collected (February and June 2002) to confirm the presence of vinyl chloride in this well. The results of these additional samples, as well as the third and fourth annual sampling results confirm the presence of vinyl chloride in MW-3S at levels above drinking water criteria. Additional investigation activities have been conducted to further

evaluate the presence and extent of vinyl chloride in shallow groundwater in the vicinity of MW-3S, as described later in this letter.

One SVOC was detected in MW-01S at a low level for a compound that does not have a MDEQ Generic Drinking Water Criteria. PCBs were not detected in any of the samples collected during the current sampling round.

As shown in Table 1, trace concentrations of arsenic, barium, copper, chromium, and zinc were detected in several samples. However, none of the detected metal concentrations exceeded MDEQ Generic Drinking Water Criteria.

METHANE MONITORING

During this sampling event, WESTON screened the methane monitoring wells (M-1, M-2, M-3, M-4) shown in Figure 1 for methane gas. Methane screening was conducted using a combustible gas indicator (CGI), which measures the concentration of potential explosive gases based on the percentage of lower explosive limit (LEL). Screening results indicated that well M-1 registered an LEL reading of 4 %; M-2 registered a reading of 2 %; M-3 registered a reading of 2 %; and M-4 registered a reading of 2 %.

INVESTIGATION OF VINYL CHLORIDE

Annual groundwater sampling results from well MW-3S have indicated since the second sample event report in January 2002 the presence of vinyl chloride above its MDEQ Generic Drinking Water Criteria. Vinyl chloride levels have been relatively stable and ranged between 0.013 and 0.024 mg/L from October 2001 through October 2002. The most recent sampling result (November 2003) indicates a decrease in concentration to 0.005 mg/L. The source of vinyl chloride is unknown but may be due to anaerobic biodegradation of TCE. TCE contamination was documented during interim action removal of the former oil disposal pit and it is possible that some residual low level TCE contamination is present in the vicinity of MW-03S within the perched water-bearing zone. Other common TCE breakdown products have also been detected in MW-03S including 1,1-dichloroethane, and cis- and trans-1,2-dichloroethene at steady or slightly increasing levels.

As a result of this data, MDEQ requested further testing (letter dated 18 December 2002) to evaluate the presence and extent of vinyl chloride in shallow groundwater downgradient of MW-03S. GM prepared and submitted a proposed scope of work to further investigate the extent of vinyl chloride downgradient of MW-03S in a letter dated 29 January 2003. Field investigation activities were conducted in June 2003 and consisted of advancing a series of Geoprobe boreholes, logging stratigraphy, and collecting groundwater samples to a maximum depth of 12 feet bgs. The results of this investigation were documented in a letter report to MDEQ dated 20

August 2003 and indicated vinyl chloride was present in shallow groundwater at one sampling location south of MW-03S above MDEQ Generic Drinking Water Criteria. Due to the location of this detection, the lateral extent of vinyl chloride was not delineated to the east and additional sampling was recommended. MDEQ concurred in a 25 August 2003 letter that additional sampling was warranted. GM submitted a proposed scope of additional work in a letter dated 10 October 2003 to further delineate the extent of vinyl chloride south of MW-03S. The scope of work was approved in a MDEQ letter dated 15 October 2003.

Additional field investigation activities were conducted on 6 November and 9 December 2003 and included advancing five additional borings (GP-13 through GP-17) for the purpose of logging stratigraphy and collecting groundwater samples. Boring locations are depicted on Figure 2. Borings were advanced to a maximum depth of 12 feet bgs. Select boreholes were logged by a geologist using the Unified Soil Classification System (USCS). Boring logs are presented in Attachment B.

Groundwater samples were obtained from temporary piezometers installed to depths ranging from 4.5 to 12 feet bgs in borings GP-13, GP-14, GP-16, and GP-17. Boring GP-15 was dry to a depth of 10 feet bgs and no groundwater sample was collected. In addition, a resample effort was undertaken to attempt groundwater sampling at GP-6 and GP-8 which had been dry during the initial investigation. A groundwater sample was collected from GP-8; however, GP-6 was dry and no sample was collected.

Groundwater samples were analyzed for VOCs by Merit Laboratories of East Lansing, Michigan. Analytical data was validated by a WESTON chemist in accordance with U.S. EPA data validation procedures.

Groundwater analytical data is summarized in Table 2 and includes results for both investigation phases. Groundwater data are compared to MDEQ Generic Drinking Water Criteria for residential and commercial property categories. A copy of the complete laboratory report, including QA/QC data and chain-of-custody documentation, is presented in Attachment C.

As shown on Table 2, three VOCs have been detected in shallow groundwater downgradient of MW-3S. These include TCE, cis-1,2-dichloroethene, and vinyl chloride. TCE was detected in four borings (GP-9, GP-11, GP-12, and GP-17) at low concentrations ranging from 0.001 to 0.002 mg/L. All TCE detections are below the MDEQ Generic Drinking Water Criteria for TCE.

Cis-1,2-dichloroethene was detected in borings GP-9 through GP-12 at low concentrations ranging from 0.001 to 0.035 mg/L. Cis-1,2-dichloroethene detections are below the MDEQ Generic Drinking Water Criteria for this compound.

Vinyl chloride was detected in two groundwater samples (GP-9 and GP-12) at concentrations of 0.001 and 0.003, respectively. The GP-12 vinyl chloride concentration (0.003 mg/L) slightly exceeds the MDEQ Generic Drinking Water Criteria for this compound. The additional groundwater sampling conducted in November and December 2003 was conducted to evaluate the presence and extent of vinyl chloride levels in shallow groundwater north and east of GP-12 and GP-9, respectively. Vinyl chloride was not detected in the additional groundwater samples collected in these areas.

Based on this data, the presence of vinyl chloride in shallow groundwater downgradient of MW-03S has been adequately delineated and appears localized in the immediate vicinity of MW-3S, and extending only approximately 100 feet to the east/northeast at low concentration levels within 0.001 mg/L of the MDEQ Generic Drinking Water Criteria for this compound. No further delineation groundwater sampling is recommended at this time. The next annual groundwater and methane monitoring event will occur in October 2004.

If you have any questions or require additional information, please call me at (847) 918-4018.

Very truly yours,
WESTON SOLUTIONS, INC.

S. Babusukumar, P.G.
Project Manager

SB\tg

cc: R. Metcalf, GM

Table 1
Comparison of Detected Compounds to MDEQ Generic Drinking Water Criteria
Groundwater Sample Analytical Results 1999 to Date
Linden Road Site

Sample Location	MW-1S	MW-1S	MW-1S DP	MW-1S	MW-1S	MW-1S DP	MW-1S	MW-3S	MW-3S	MW-3S	MW-3S	MW-3S DP	MW-3S	MW-3S DP	MW-3S	MW-3S	MDEQ Generic Drinking Water Criteria	
Sample Date	Oct-99	Oct-00	Oct-00	Oct-01	Oct-02	Oct-02	Nov-03	Oct-99	Oct-00	Oct-01	Feb-02	Feb-02	Jun-02	Jun-02	Oct-02	Nov-03	Residential	Industrial/ Commercial
VOCs (mg/L)																		
Benzene	0.002	---	---	---	0.001	0.001	---	---	---	---	---	---	---	---	---	---	0.005	0.005
Trichloroethene	0.087	0.06	0.07	0.08	0.066	0.071	0.058	0.001	---	---	---	---	---	---	---	---	0.005	0.005
1,1-Dichloroethane	---	---	---	---	---	---	---	0.006	0.017	0.021	0.011	0.012	0.014	0.015	0.012	0.005	0.88	2.5
cis-1,2-Dichloroethene	0.14	0.25	0.28	0.17	0.127	0.121	0.166	0.015	0.035	0.035	0.016	0.016	0.021	0.024	0.021	0.005	0.07	0.07
1,2-Dichloropropane	---	---	---	---	---	---	---	---	0.001	0.002	---	---	0.001	0.001	---	---	0.005	0.005
trans-1,2-Dichloroethene	---	---	---	---	---	---	---	0.001	0.002	0.002	---	---	0.001	0.001	0.001	---	0.1	0.1
Toluene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.79	0.79
Vinyl chloride	0.054	---	---	0.02	0.116	0.107	0.051	---	---	0.023	0.013	0.014	0.023	0.024	0.019	0.005	0.002	0.002
1,3,5-Trimethylbenzene	---	0.02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	2.9
SVOCs (mg/L)																		
Bis(2-ethylhexyl)phthalate	---	---	---	---	---	---	---	---	---	---	na	na	na	na	---	---	0.006	0.006
Bis(2-chloroisopropyl)ether	0.07	0.02	0.02	---	0.02	0.02	0.01	---	---	---	na	na	na	na	---	---	---	---
Total Metals (mg/L)																		
Arsenic	---	---	---	0.001	0.002	0.002	0.003	0.009	0.007	0.006	na	na	na	na	0.009	0.004	0.05	0.05
Barium	0.14	0.08	0.08	0.08	0.1	0.1	0.08	0.18	0.15	0.14	na	na	na	na	0.16	0.16	2	2
Cadmium	---	---	---	---	---	---	---	---	---	---	na	na	na	na	---	---	0.005	0.005
Copper	0.01	---	---	---	---	---	---	---	---	---	na	na	na	na	---	---	1	1
Chromium	---	---	---	---	---	---	---	0.03	---	---	na	na	na	na	0.005	---	0.1	0.1
Lead	---	---	---	---	---	---	---	---	---	---	na	na	na	na	---	---	0.004	0.004
Zinc	0.01	---	---	---	---	---	0.008	0.01	---	0.01	na	na	na	na	0.006	0.011	2.4	2.4

Notes:

---	Compound not detected above laboratory detection limit; or no criteria available.
na	Compound not analyzed
	Shaded areas indicate concentrations exceed MDEQ Generic Drinking Water Criteria
DP	Field quality control duplicate sample

Table 1 (continued)
Comparison of Detected Compounds to MDEQ Generic Drinking Water Criteria
Groundwater Sample Analytical Results 1999 to Date
Linden Road Site

Sample Location	MW-5S	MW-5S	MW-5S	MW-5S DP	MW-5S	MW-5S	MW-5S DP	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-7S	MW-7S	MW-7S	MW-7S	MW-7S	MDEQ Generic Drinking Water Criteria	
Sample Date	Oct-99	Oct-00	Oct-01	Oct-01	Oct-02	Nov-03	Nov-03	Oct-99	Oct-00	Oct-01	Oct-02	Nov-03	Oct-99	Oct-00	Oct-01	Oct-02	Nov-03	Residential	Industrial/ Commercial
VOCs (mg/L)																			
Benzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.005	0.005
Trichloroethene	---	1.16	0.36	0.38	0.28	2.52	2.8	---	---	---	---	---	---	---	---	---	dry	0.005	0.005
1,1-Dichloroethane	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.88	2.5
cis-1,2-Dichloroethene	---	0.09	0.09	0.09	0.06	0.04	0.04	---	---	---	---	---	---	---	---	---	dry	0.07	0.07
1,2-Dichloropropane	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.005	0.005
trans-1,2-Dichloroethene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.1	0.1
Toluene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.79	0.79
Vinyl chloride	---	---	0.02	0.03	0.06	---	---	---	---	---	---	---	0.02	---	---	---	dry	0.002	0.002
1,3,5-Trimethylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	1	2.9
SVOCs (mg/L)																			
Bis(2-ethylhexyl)phthalate	0.03	---	---	---	---	---	---	---	---	---	---	---	0.02	---	---	---	dry	0.006	0.006
Bis(2-chloroisopropyl)ether	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	---	---
Total Metals (mg/L)																			
Arsenic	---	---	---	---	---	---	---	---	0.002	0.002	0.003	0.004	0.001	0.002	0.004	0.01	dry	0.05	0.05
Barium	0.011	0.14	0.16	0.16	0.16	0.11	0.11	0.002	0.02	0.03	0.04	0.03	0.06	0.02	0.02	0.02	dry	2	2
Cadmium	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.005	0.005
Copper	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	1	1
Chromium	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.1	0.1
Lead	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	dry	0.004	0.004
Zinc	0.03	---	---	---	---	---	---	0.06	0.02	0.02	0.029	0.034	0.02	---	0.01	---	dry	2.4	2.4

Notes:

---	Compound not detected above laboratory detection limit; or no criteria available.
na	Compound not analyzed
	Shaded areas indicate concentrations exceed MDEQ Generic Drinking Water Criteria
DP	Field quality control duplicate sample

Table 1 (continued)
Comparison of Detected Compounds to MDEQ Generic Drinking Water Criteria
Groundwater Sample Analytical Results 1999 to Date
Linden Road Site

Sample Location	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-11S	MW-11S	MW-11S	MW-11S	MW-11S	MW-11S	MW-11S	MW-12S	MW-12S DP	MW-12S	MW-12S	MW-12S	MW-12S	MDEQ Generic Drinking Water Criteria	
Sample Date	Oct-99	Oct-00	Oct-01	Oct-02	Nov-03	Oct-99	Feb-00	Jun-00	Oct-00	Oct-01	Oct-02	Nov-03	Oct-99	Oct-99	Oct-00	Oct-01	Oct-02	Nov-03	Residential	Industrial/ Commercial
VOCs (mg/L)																				
Benzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
Trichloroethene	0.002	0.001	0.002	0.001	0.001	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
1,1-Dichloroethane	0.004	0.039	0.007	0.003	0.024	---	---	---	---	---	---	---	---	---	---	---	---	---	0.88	2.5
cis-1,2-Dichloroethene	0.004	0.002	0.004	0.002	0.002	0.001	0.002	---	---	---	---	---	---	---	---	---	0.001	0.002	0.07	0.07
1,2-Dichloropropane	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
trans-1,2-Dichloroethene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.1
Toluene	---	---	---	---	---	0.002	---	---	---	---	---	---	---	---	---	---	---	---	0.79	0.79
Vinyl chloride	---	---	---	0.001	---	0.003	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.002
1,3,5-Trimethylbenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	2.9
SVOCs (mg/L)																				
Bis(2-ethylhexyl)phthalate	---	---	---	---	---	---	na	na	---	---	---	---	---	---	---	---	---	---	0.006	0.006
Bis(2-chloroisopropyl)ether	---	---	---	---	---	---	na	na	---	---	---	---	---	---	---	---	---	---	---	---
Total Metals (mg/L)																				
Arsenic	---	0.007	0.022	0.02	0.048	---	na	na	0.017	0.019	0.027	0.031	---	---	---	0.007	0.01	0.009	0.05	0.05
Barium	0.06	0.02	0.03	0.06	0.07	0.16	na	na	0.39	0.34	0.41	0.41	0.13	0.08	0.15	0.13	0.16	0.12	2	2
Cadmium	---	---	0.0003	---	0.0003	---	na	na	---	---	---	---	---	---	---	---	---	---	0.005	0.005
Copper	---	---	---	---	0.01	0.01	na	na	---	---	---	---	0.02	0.03	---	---	---	---	1	1
Chromium	0.01	---	---	---	---	0.02	na	na	---	---	0.005	0.006	---	---	---	---	---	---	0.1	0.1
Lead	---	---	---	---	---	---	na	na	---	---	---	---	---	---	---	---	---	---	0.004	0.004
Zinc	0.04	0.01	0.01	0.007	0.016	0.02	na	na	---	0.01	0.012	0.009	---	0.01	---	0.02	---	0.016	2.4	2.4

Notes:

---	Compound not detected above laboratory detection limit; or no criteria available.
na	Compound not analyzed
	Shaded areas indicate concentrations exceed MDEQ Generic Drinking Water Criteria
DP	Field quality control duplicate sample

Table 1 (continued)
Comparison of Detected Compounds to MDEQ Generic Drinking Water Criteria
Groundwater Sample Analytical Results 1999 to Date
Linden Road Site

Sample Location	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MDEQ Generic Drinking Water Criteria	
Sample Date	Oct-99	Oct-00	Oct-01	Oct-02	Nov-03	Residential	Industrial/ Commercial
VOCs (mg/L)							
Benzene	---	---	---	---	---	0.005	0.005
Trichloroethene	0.001	0.001	---	---	---	0.005	0.005
1,1-Dichloroethane	---	---	---	---	---	0.88	2.5
cis-1,2-Dichloroethene	---	---	---	---	---	0.07	0.07
1,2-Dichloropropane	---	---	---	---	---	0.005	0.005
trans-1,2-Dichloroethene	---	---	---	---	---	0.1	0.1
Toluene	---	---	0.001	---	---	0.79	0.79
Vinyl chloride	---	---	---	---	---	0.002	0.002
1,3,5-Trimethylbenzene	---	---	---	---	---	1	2.9
SVOCs (mg/L)							
Bis(2-ethylhexyl)phthalate	---	---	---	---	---	0.006	0.006
Bis(2-chloroisopropyl)ether	---	---	---	---	---	---	---
Total Metals (mg/L)							
Arsenic	---	---	0.001	---	---	0.05	0.05
Barium	0.15	0.06	0.1	0.14	0.09	2	2
Cadmium	---	---	---	---	---	0.005	0.005
Copper	---	---	---	0.01	---	1	1
Chromium	0.01	---	---	---	---	0.1	0.1
Lead	0.004	---	---	---	---	0.004	0.004
Zinc	0.02	---	0.09	---	---	2.4	2.4

Notes:

---	Compound not detected above laboratory detection limit; or no criteria available.
na	Compound not analyzed
	Shaded areas indicate concentrations exceed MDEQ Generic Drinking Water Criteria
DP	Field quality control duplicate sample

Table 2
Comparison of Detected Compounds to MDEQ Generic Drinking Water Criteria
Groundwater Sample Analytical Results
Focused Environmental Investigation (Well MW-3S)
Linden Road Site.

Sample Location	GP-1	GP-1 DP	GP-3	GP-8	GP-9	GP-10	GP-11	GP-12	GP-13	GP-13 DP	GP-14	GP-16	GP-17	GP-17DP	MDEQ Criteria	
Sample Date	6/24/03	6/24/03	6/24/03	12/9/03	6/24/03	6/24/03	6/24/03	6/24/03	11/6/03	11/6/03	12/9/03	12/9/03	12/9/03	12/9/03	Residential	Industrial / Commercial
VOCs (mg/L)																
Trichloroethene	---	---	---	---	0.001	---	0.002	0.001	---	---	---	---	0.002	0.002	0.005	0.005
cis-1,2-Dichloroethene	---	---	---	---	0.002	0.001	0.001	0.035	---	---	---	---	---	---	0.07	0.07
Vinyl chloride	---	---	---	---	0.001	---	---	0.003	---	---	---	---	---	---	0.002	0.002

Notes:

---	Compound not detected above laboratory detection limits
	Shaded area indicate concentration exceeds MDEQ Generic Drinking Water Criteria
DP	QC Field duplicate sample

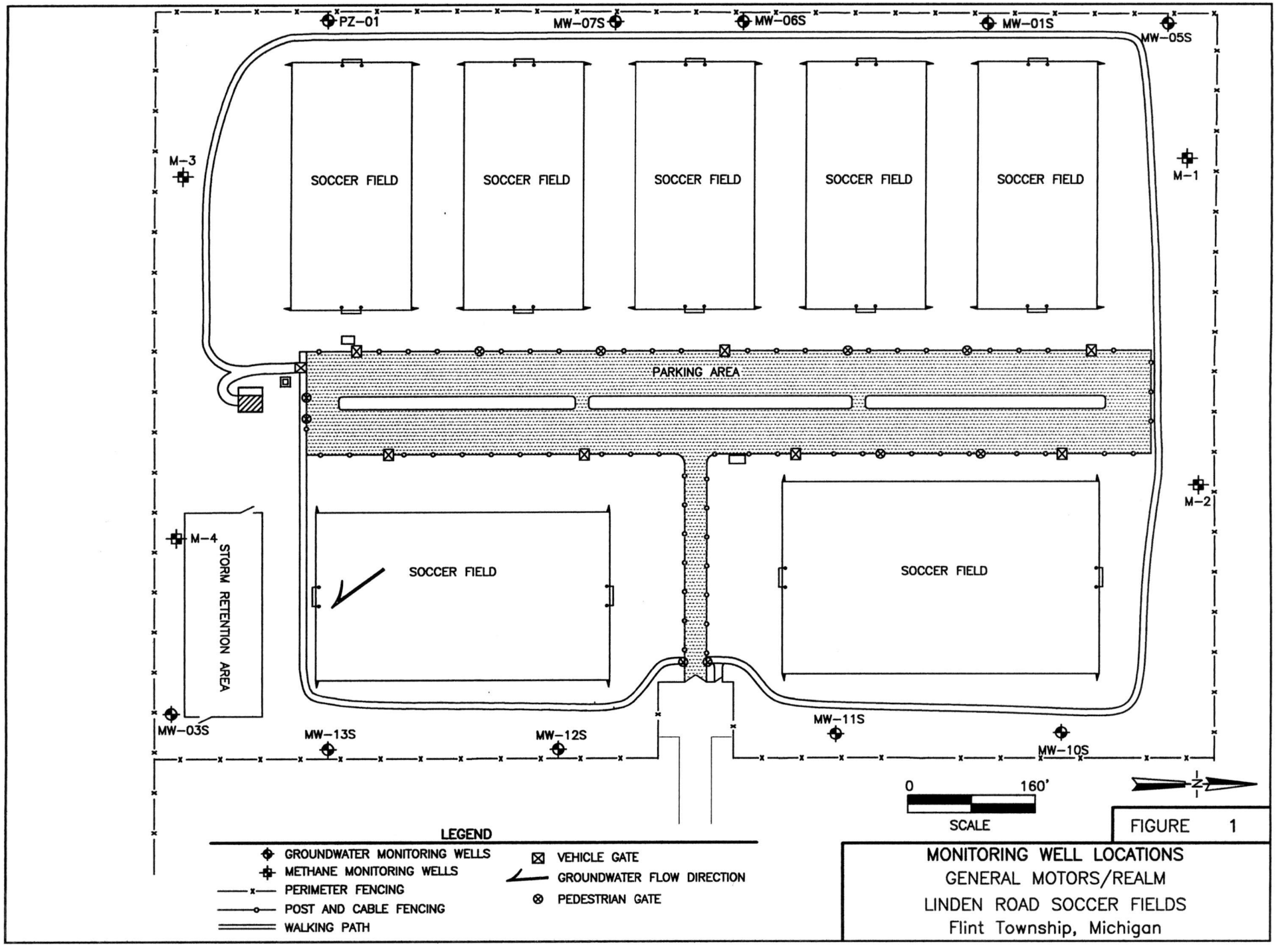

FIGURE 1

MONITORING WELL LOCATIONS
GENERAL MOTORS/REALM
LINDEN ROAD SOCCER FIELDS
Flint Township, Michigan

C:\6.03geoprobe.dwg

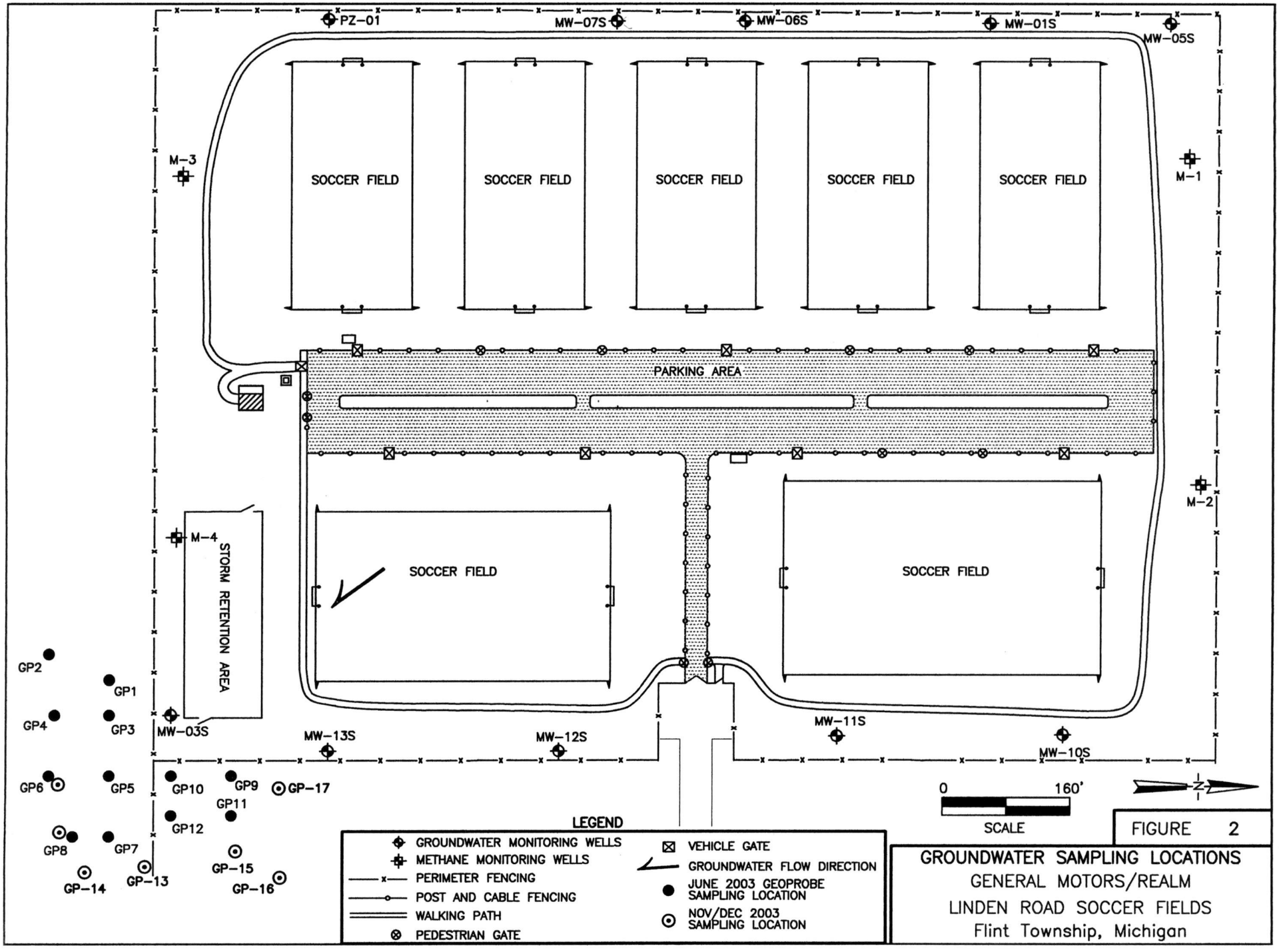

FIGURE 2

GROUNDWATER SAMPLING LOCATIONS
GENERAL MOTORS/REALM
LINDEN ROAD SOCCER FIELDS
Flint Township, Michigan

C:\6.03geoprobe.dwg

APPENDIX A

LABORATORY ANALYTICAL DATA

GM
Linden Road
15109

General Comment:
All samples were extracted/digested and analyzed within the required holding times.

Volatile Organics:

Lab ID (15109)	Sample ID	Sample Date	Analysis Date
01	MW-01S	11/6/03	11/20/03
02	MW-03S	11/6/03	11/19/03
03	MW-05S	11/6/03	11/20/03
04	MW-05S Dup	11/6/03	11/20/03
05	MW-06S	11/6/03	11/19/03
06	MW-10S	11/6/03	11/19/03
07	MW-11S	11/6/03	11/19/03
08	MW-12S	11/6/03	11/19/03
09	MW-13S	11/6/03	11/19/03
010	GP-13 (7-12)	11/6/03	11/19/03
011	GP-13 (7-12 Dup)	11/6/03	11/20/03
012	Trip Blank	11/6/03	11/20/03
013	Field Blank	11/6/03	11/20/03

1. Method Blank:
The method blank was free of contamination.

2. Surrogate Recovery
Sample 03 had one surrogate outside control limits. All positive results in sample 03 are flagged J and non-detects as UJ. All other surrogate recoveries associated with this sample set were within required limits.

3. Matrix Spike/Matrix Spike Duplicate
Sample 5 was used as the MS. All recoveries were within laboratory required control limits.

4. Instrument Performance Check
All instrument performance check results are acceptable.

5. Internal Standards
All internal standard recoveries were within the control limits (50 to 200).

6. Calibration Check Compounds
The calibration check compounds indicated acceptable results.

7. Trip and Field Blanks
Sample 12 was a trip blank and 13 was a field blank. Both blank samples were free of contamination.

GM
Linden Road
15109
Cont.

Semivolatiles:

Lab ID (15109)	Sample ID	Sample Date	Analysis Date
01	MW-01S	11/6/03	11/17/03
02	MW-03S	11/6/03	11/17/03
03	MW-05S	11/6/03	11/17/03
04	MW-05S Dup	11/6/03	11/17/03
05	MW-06S	11/6/03	11/17/03
06	MW-10S	11/6/03	11/17/03
07	MW-11S	11/6/03	11/17/03
08	MW-12S	11/6/03	11/19/03
09	MW-13S	11/6/03	11/19/03

1. Method Blank
The method blank compound was free of contamination.

2. Surrogate Recovery
All surrogate recoveries were within required control limits. However, there were no surrogate recoveries reported for sample 08.

3. Matrix Spike
No matrix QC was associated with the samples.

4. Instrument Performance Check
All performance check results are acceptable. The performance compound check was acceptable.

5. Internal Standards
All internal standard recoveries were within the control limits (50 to 200).

6. Calibration Check Compounds
The calibration check compounds indicated acceptable results.

PCBs

Lab ID (15109)	Sample ID	Sample Date	Analysis Date
01	MW-01S	11/6/03	11/11/03
02	MW-03S	11/6/03	11/11/03
03	MW-05S	11/6/03	11/11/03
04	MW-05S Dup	11/6/03	11/11/03
05	MW-06S	11/6/03	11/12/03
06	MW-10S	11/6/03	11/12/03
07	MW-11S	11/6/03	11/12/03
08	MW-12S	11/6/03	11/12/03
09	MW-13S	11/6/03	11/13/03

1. Method Blank
The method blanks are free of contamination.

2. Surrogate Recovery
All surrogate recoveries were acceptable.

3. Matrix Spike/Matrix Spike Duplicate
The MS/MSD was batch QC and was not associated with samples from this sample set. All MS recoveries were acceptable.

4. Initial Calibration
Calibration and verification data is acceptable.

Metals

Lab ID (15109)	Sample ID	Sample Date	Analysis Date
01	MW-01S	11/6/03	11/14, 11/24/03
02	MW-03S	11/6/03	11/14, 11/24/03
03	MW-05S	11/6/03	11/14, 11/24/03
04	MW-05S Dup	11/6/03	11/13, 11/24/03
05	MW-06S	11/6/03	11/13, 11/24/03
06	MW-10S	11/6/03	11/13, 11/24/03
07	MW-11S	11/6/03	11/13, 11/24/03
08	MW-12S	11/6/03	11/13, 11/24/03
09	MW-13S	11/6/03	11/13, 11/24/03

1. Matrix Spike/Matrix Spike Duplicate
Sample 9 was designated as the MS sample (metals and mercury). Sample 3 was also designated as a MS for mercury. All recoveries were within required control limits.

2. Duplicates
Sample 9 was designated as the duplicate sample (metals and mercury). Sample 3 was also designated as a duplicate for mercury. All recoveries were within required control limits.

3. Calibration
Initial calibration verification and blanks showed acceptable responses. The continuing calibration verifications and blanks indicated acceptable responses.

4. Laboratory Control Sample
All mercury laboratory control sample results were within required ranges. No LCS was reported with the metal samples.

Data Reviewed by: T. Balla Date: 1/21/04

Analytical Laboratory Report

Report ID: S15109.01(01)
Generated on 11/25/2003

Report to
Attention: Mr. Babusukumar
Weston Solutions, Inc.
750 East Bunker Court Ste 500
Vernon Hills, IL 60061

Phone: 847-918-4018 FAX: 847-918-4055

Report produced by
Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary
Lab Sample ID(s): S15109.01-S15109.13
Project: Gm-Linden Rd.
Submitted Date/Time: 11/07/2003 15:05
Sampled by: KL/KM
P.O. #:

Report Notes
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.01
Sample Tag: MW-01S
Collected Date/Time: 11/06/2003 14:35
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/11/03	SD		
Extraction, PCB	Completed			3510C	11/11/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	0.003	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.08	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/14/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	0.008	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/11/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/11/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/11/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/11/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/11/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/11/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/11/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	5	8260B	11/20/03	JGH	71-43-2	Y
Bromodichloromethane	Not detected	ug/L	5	8260B	11/20/03	JGH	75-27-4	Y
Bromoform	Not detected	ug/L	5	8260B	11/20/03	JGH	75-25-2	Y
Bromomethane	Not detected	ug/L	30	8260B	11/20/03	JGH	74-83-9	Y
n-Butylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	104-51-8	Y
sec-Butylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	135-98-8	Y
tert-Butylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	98-06-6	Y
Carbon tetrachloride	Not detected	ug/L	5	8260B	11/20/03	JGH	56-23-5	Y
Chlorobenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	108-90-7	Y
Chloroethane	Not detected	ug/L	5	8260B	11/20/03	JGH	75-00-3	Y
Chloroform	Not detected	ug/L	5	8260B	11/20/03	JGH	67-66-3	Y
Chloromethane	Not detected	ug/L	5	8260B	11/20/03	JGH	74-87-3	Y

Y-Elevated reporting limit due to high target concentration

Report ID: S15109.01(0
Generated on 11/25/20

Report to Weston Solutions, Inc.
Project: Gm-Linden Rd.

Sample ID: S15109.01 (continued)
Sample Tag: MW-01S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Bromochloromethane	Not detected	ug/L	5	8260B	11/20/03	JGH	124-48-1	Y
1,2-Dichlorobenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	95-50-1	Y
1,3-Dichlorobenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	541-73-1	Y
1,4-Dichlorobenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	106-46-7	Y
1,1-Dichloroethane	Not detected	ug/L	5	8260B	11/20/03	JGH	75-34-3	Y
1,2-Dichloroethane	Not detected	ug/L	5	8260B	11/20/03	JGH	107-06-2	Y
1,1-Dichloroethene	Not detected	ug/L	5	8260B	11/20/03	JGH	75-35-4	Y
cis-1,2-Dichloroethene	166	ug/L	5	8260B	11/20/03	JGH	156-59-2	Y
trans-1,2-Dichloroethene	Not detected	ug/L	5	8260B	11/20/03	JGH	156-60-5	Y
1,2-Dichloropropane	Not detected	ug/L	5	8260B	11/20/03	JGH	78-87-5	Y
cis-1,3-Dichloropropene	Not detected	ug/L	5	8260B	11/20/03	JGH	10061-01-5	Y
trans-1,3-Dichloropropene	Not detected	ug/L	5	8260B	11/20/03	JGH	10061-02-6	Y
Ethylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	100-41-4	Y
Isopropylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	98-82-8	Y
Isopropyltoluene	Not detected	ug/L	5	8260B	11/20/03	JGH	99-87-6	Y
Methylene chloride	Not detected	ug/L	30	8260B	11/20/03	JGH	75-09-2	Y
Naphthalene	Not detected	ug/L	5	8260B	11/20/03	JGH	91-20-3	Y
Propylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	103-65-1	Y
Styrene	Not detected	ug/L	5	8260B	11/20/03	JGH	100-42-5	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/L	5	8260B	11/20/03	JGH	79-34-5	Y
Tetrachloroethene	Not detected	ug/L	5	8260B	11/20/03	JGH	127-18-4	Y
Toluene	Not detected	ug/L	5	8260B	11/20/03	JGH	108-88-3	Y
1,1,1-Trichloroethane	Not detected	ug/L	5	8260B	11/20/03	JGH	71-55-6	Y
1,1,2-Trichloroethane	Not detected	ug/L	5	8260B	11/20/03	JGH	79-00-5	Y
Trichloroethene	58	ug/L	5	8260B	11/20/03	JGH	79-01-6	Y
1,2,4-Trimethylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	95-63-6	Y
1,3,5-Trimethylbenzene	Not detected	ug/L	5	8260B	11/20/03	JGH	108-67-8	Y
Vinyl chloride	51	ug/L	5	8260B	11/20/03	JGH	75-01-4	Y
o-Xylene	Not detected	ug/L	5	8260B	11/20/03	JGH	95-47-6	Y
p,m-Xylene	Not detected	ug/L	5	8260B	11/20/03	JGH	106-42-3	Y
Acetone	Not detected	ug/L	300	8260B	11/20/03	JGH	67-64-1	Y
2-Butanone (MEK)	Not detected	ug/L	300	8260B	11/20/03	JGH	78-93-3	Y
Carbon disulfide	Not detected	ug/L	300	8260B	11/20/03	JGH	75-15-0	Y
2-Hexanone	Not detected	ug/L	300	8260B	11/20/03	JGH	591-78-6	Y
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	300	8260B	11/20/03	JGH	108-10-1	Y
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	50	8260B	11/20/03	JGH	1634-04-4	Y
GC/MS Semi-Volatile Organics								
Acenaphthene	Not detected	ug/L	10	8270C	11/17/03	ARH	83-32-9	
Acenaphthylene	Not detected	ug/L	10	8270C	11/17/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	8270C	11/17/03	ARH	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/17/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	111-44-4	

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S15109.01 (continued)
Sample Tag: MW-01S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
bis(2-Chloroisopropyl)ether	10	ug/L	10	8270C	11/17/03	ARH	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/17/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/17/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/17/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/17/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/17/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/17/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/17/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/17/03	ARH	85-01-8	

Sample ID: S15109.01 (continued)
Sample Tag: MW-01S

lysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
/MS Semi-Volatile Organics (continued)								
nol	Not detected	ug/L	10	8270C	11/17/03	ARH	108-95-2	
ene	Not detected	ug/L	10	8270C	11/17/03	ARH	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-82-1	
5-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-95-4	
6-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-06-2	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.02
Sample Tag: MW-03S
Collected Date/Time: 11/06/2003 16:05
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/11/03	SD		
Extraction, PCB	Completed			3510C	11/11/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	0.004	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.16	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/14/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	0.011	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/11/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/11/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/11/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/11/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/11/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/11/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/11/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/19/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/19/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/19/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/19/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/19/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	124-48-1	

Sample ID: S15109.02 (continued)
Sample Tag: MW-03S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-46-7	
1,1-Dichloroethane	5	ug/L	1	8260B	11/19/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	75-35-4	
cis-1,2-Dichloroethene	5	ug/L	1	8260B	11/19/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/19/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	11/19/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/19/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/19/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-67-8	
Vinyl chloride	5	ug/L	1	8260B	11/19/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-42-3	
Acetone	Not detected	ug/L	50	8260B	11/19/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	11/19/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/19/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/19/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/19/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/19/03	JGH	1634-04-4	
GC/MS Semi-Volatile Organics								
Acenaphthene	Not detected	ug/L	10	8270C	11/17/03	ARH	83-32-9	
Acenaphthylene	Not detected	ug/L	10	8270C	11/17/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	8270C	11/17/03	ARH	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/17/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-81-7	

Lab Sample ID: S15109.02 (continued)
Sample Tag: MW-03S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/17/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/17/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/17/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/17/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/17/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/17/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/17/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/17/03	ARH	85-01-8	
Phenol	Not detected	ug/L	10	8270C	11/17/03	ARH	108-95-2	
Pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	129-00-0	

Sample ID: S15109.02 (continued)
Sample Tag: MW-03S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-82-1	
,5-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-06-2	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.03
Sample Tag: MW-05S
Collected Date/Time: 11/06/2003 14:30
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/11/03	SD		
Extraction, PCB	Completed			3510C	11/11/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	Not detected	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.11	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/14/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/11/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/11/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/11/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/11/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/11/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/11/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/11/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	UJ ug/L	20	8260B	11/20/03	JGH	71-43-2	YS
Bromodichloromethane	Not detected	ug/L	20	8260B	11/20/03	JGH	75-27-4	YS
Bromoform	Not detected	ug/L	20	8260B	11/20/03	JGH	75-25-2	YS
Bromomethane	Not detected	ug/L	100	8260B	11/20/03	JGH	74-83-9	YS
n-Butylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	104-51-8	YS
sec-Butylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	135-98-8	YS
tert-Butylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	98-06-6	YS
Carbon tetrachloride	Not detected	ug/L	20	8260B	11/20/03	JGH	56-23-5	YS
Chlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	108-90-7	YS
Chloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	75-00-3	YS
Chloroform	Not detected	ug/L	20	8260B	11/20/03	JGH	67-66-3	YS
Chloromethane	Not detected	ug/L	20	8260B	11/20/03	JGH	74-87-3	YS

Y-Elevated reporting limit due to high target concentration S-Surrogate recovery outside of control limits

Merit Laboratories, Inc.

Analytical Laboratory Report

Sample ID: S15109.03 (continued)
Sample Tag: MW-05S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Bromochloromethane	Not detected UJ	ug/L	20	8260B	11/20/03	JGH	124-48-1	YS
1,2-Dichlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	95-50-1	YS
1,3-Dichlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	541-73-1	YS
1,4-Dichlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	106-46-7	YS
1,1-Dichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	75-34-3	YS
1,2-Dichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	107-06-2	YS
1,1-Dichloroethene	Not detected	ug/L	20	8260B	11/20/03	JGH	75-35-4	YS
cis-1,2-Dichloroethene	40 J	ug/L	20	8260B	11/20/03	JGH	156-59-2	YS
trans-1,2-Dichloroethene	Not detected UJ	ug/L	20	8260B	11/20/03	JGH	156-60-5	YS
1,2-Dichloropropane	Not detected	ug/L	20	8260B	11/20/03	JGH	78-87-5	YS
cis-1,3-Dichloropropene	Not detected	ug/L	20	8260B	11/20/03	JGH	10061-01-5	YS
trans-1,3-Dichloropropene	Not detected	ug/L	20	8260B	11/20/03	JGH	10061-02-6	YS
Ethylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	100-41-4	YS
Isopropylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	98-82-8	YS
p-Isopropyltoluene	Not detected	ug/L	20	8260B	11/20/03	JGH	99-87-6	YS
Methylene chloride	Not detected	ug/L	100	8260B	11/20/03	JGH	75-09-2	YS
Naphthalene	Not detected	ug/L	20	8260B	11/20/03	JGH	91-20-3	YS
n-Propylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	103-65-1	YS
Styrene	Not detected	ug/L	20	8260B	11/20/03	JGH	100-42-5	YS
1,1,2,2-Tetrachloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	79-34-5	YS
Tetrachloroethene	Not detected	ug/L	20	8260B	11/20/03	JGH	127-18-4	YS
Toluene	Not detected	ug/L	20	8260B	11/20/03	JGH	108-88-3	YS
1,1,1-Trichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	71-55-6	YS
1,1,2-Trichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	79-00-5	YS
Trichloroethene	2,520 J	ug/L	20	8260B	11/20/03	JGH	79-01-6	YS
1,2,4-Trimethylbenzene	Not detected UJ	ug/L	20	8260B	11/20/03	JGH	95-63-6	YS
1,3,5-Trimethylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	108-67-8	YS
Vinyl chloride	Not detected	ug/L	20	8260B	11/20/03	JGH	75-01-4	YS
o-Xylene	Not detected	ug/L	20	8260B	11/20/03	JGH	95-47-6	YS
p,m-Xylene	Not detected	ug/L	20	8260B	11/20/03	JGH	106-42-3	YS
Acetone	Not detected	ug/L	1,000	8260B	11/20/03	JGH	67-64-1	YS
2-Butanone (MEK)	Not detected	ug/L	1,000	8260B	11/20/03	JGH	78-93-3	YS
Carbon disulfide	Not detected	ug/L	1,000	8260B	11/20/03	JGH	75-15-0	YS
2-Hexanone	Not detected	ug/L	1,000	8260B	11/20/03	JGH	591-78-6	YS
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1,000	8260B	11/20/03	JGH	108-10-1	YS
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	200	8260B	11/20/03	JGH	1634-04-4	YS
GC/MS Semi-Volatile Organics								
Acenaphthene	Not detected	ug/L	10	8270C	11/17/03	ARH	83-32-9	
Acenaphthylene	Not detected	ug/L	10	8270C	11/17/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	8270C	11/17/03	ARH	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/17/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	111-44-4	

Y-Elevated reporting limit due to high target concentration S-Surrogate recovery outside of control limits

Lab Sample ID: S15109.03 (continued)
Sample Tag: MW-05S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/17/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/17/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/17/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/17/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/17/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/17/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/17/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/17/03	ARH	85-01-8	

Sample ID: S15109.03 (continued)
Sample Tag: MW-05S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
enol	Not detected	ug/L	10	8270C	11/17/03	ARH	108-95-2	
ene	Not detected	ug/L	10	8270C	11/17/03	ARH	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-82-1	
5-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-95-4	
,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-06-2	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.04
Sample Tag: MW-05SDup
Collected Date/Time: 11/06/2003 14:30
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/12/03	SD		
Extraction, PCB	Completed			3510C	11/12/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	Not detected	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.11	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/13/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/12/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/12/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/12/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/12/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/12/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/12/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/12/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	20	8260B	11/20/03	JGH	71-43-2	Y
Bromodichloromethane	Not detected	ug/L	20	8260B	11/20/03	JGH	75-27-4	Y
Bromoform	Not detected	ug/L	20	8260B	11/20/03	JGH	75-25-2	Y
Bromomethane	Not detected	ug/L	100	8260B	11/20/03	JGH	74-83-9	Y
n-Butylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	104-51-8	Y
sec-Butylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	135-98-8	Y
tert-Butylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	98-06-6	Y
Carbon tetrachloride	Not detected	ug/L	20	8260B	11/20/03	JGH	56-23-5	Y
Chlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	108-90-7	Y
Chloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	75-00-3	Y
Chloroform	Not detected	ug/L	20	8260B	11/20/03	JGH	67-66-3	Y
Chloromethane	Not detected	ug/L	20	8260B	11/20/03	JGH	74-87-3	Y

Y-Elevated reporting limit due to high target concentration

b Sample ID: S15109.04 (continued)
Sample Tag: MW-05SDup

alysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
olatile Organics (continued)								
bromochloromethane	Not detected	ug/L	20	8260B	11/20/03	JGH	124-48-1	Y
,2-Dichlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	95-50-1	Y
1,3-Dichlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	541-73-1	Y
4-Dichlorobenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	106-46-7	Y
l-Dichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	75-34-3	Y
1,2-Dichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	107-06-2	Y
l-Dichloroethene	Not detected	ug/L	20	8260B	11/20/03	JGH	75-35-4	Y
s-1,2-Dichloroethene	40	ug/L	20	8260B	11/20/03	JGH	156-59-2	Y
ans-1,2-Dichloroethene	Not detected	ug/L	20	8260B	11/20/03	JGH	156-60-5	Y
1,2-Dichloropropane	Not detected	ug/L	20	8260B	11/20/03	JGH	78-87-5	Y
s-1,3-Dichloropropene	Not detected	ug/L	20	8260B	11/20/03	JGH	10061-01-5	Y
ans-1,3-Dichloropropene	Not detected	ug/L	20	8260B	11/20/03	JGH	10061-02-6	Y
Ethylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	100-41-4	Y
opropylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	98-82-8	Y
Isopropyltoluene	Not detected	ug/L	20	8260B	11/20/03	JGH	99-87-6	Y
Methylene chloride	Not detected	ug/L	100	8260B	11/20/03	JGH	75-09-2	Y
Naphthalene	Not detected	ug/L	20	8260B	11/20/03	JGH	91-20-3	Y
-Propylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	103-65-1	Y
tyrene	Not detected	ug/L	20	8260B	11/20/03	JGH	100-42-5	Y
1,1,2,2-Tetrachloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	79-34-5	Y
etrachloroethene	Not detected	ug/L	20	8260B	11/20/03	JGH	127-18-4	Y
oluene	Not detected	ug/L	20	8260B	11/20/03	JGH	108-88-3	Y
1,1,1-Trichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	71-55-6	Y
,1,2-Trichloroethane	Not detected	ug/L	20	8260B	11/20/03	JGH	79-00-5	Y
richloroethene	2,800	ug/L	20	8260B	11/20/03	JGH	79-01-6	Y
,2,4-Trimethylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	95-63-6	Y
1,3,5-Trimethylbenzene	Not detected	ug/L	20	8260B	11/20/03	JGH	108-67-8	Y
inyl chloride	Not detected	ug/L	20	8260B	11/20/03	JGH	75-01-4	Y
-Xylene	Not detected	ug/L	20	8260B	11/20/03	JGH	95-47-6	Y
p,m-Xylene	Not detected	ug/L	20	8260B	11/20/03	JGH	106-42-3	Y
Acetone	Not detected	ug/L	1,000	8260B	11/20/03	JGH	67-64-1	Y
-Butanone (MEK)	Not detected	ug/L	1,000	8260B	11/20/03	JGH	78-93-3	Y
Carbon disulfide	Not detected	ug/L	1,000	8260B	11/20/03	JGH	75-15-0	Y
-Hexanone	Not detected	ug/L	1,000	8260B	11/20/03	JGH	591-78-6	Y
-Methyl-2-pentanone (MIBK)	Not detected	ug/L	1,000	8260B	11/20/03	JGH	108-10-1	Y
ert-Methyl butyl ether (MTBE)	Not detected	ug/L	200	8260B	11/20/03	JGH	1634-04-4	Y
GC/MS Semi-Volatile Organics								
Acenaphthene	Not detected	ug/L	10	8270C	11/17/03	ARH	83-32-9	
Acenaphthylene	Not detected	ug/L	10	8270C	11/17/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	8270C	11/17/03	ARH	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/17/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	111-44-4	

Y-Elevated reporting limit due to high target concentration

Lab Sample ID: S15109.04 (continued)
Sample Tag: MW-05SDup

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-81-7	
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/17/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/17/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/17/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/17/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/17/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/17/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/17/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/17/03	ARH	85-01-8	

Sample ID: S15109.04 (continued)
Sample Tag: MW-05SDup

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
Phenol	Not detected	ug/L	10	8270C	11/17/03	ARH	108-95-2	
Pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	129-00-0	
1,2,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-06-2	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.05
Sample Tag: MW-06S
Collected Date/Time: 11/06/2003 15:15
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/12/03	SD		
Extraction, PCB	Completed			3510C	11/12/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	0.004	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.03	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/13/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	0.034	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/12/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/12/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/12/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/12/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/12/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/12/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/12/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/19/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/19/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/19/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/19/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/19/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	124-48-1	

Lab Sample ID: S15109.05 (continued)
Sample Tag: MW-06S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-46-7	
-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-34-3	
-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	75-35-4	
-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-59-2	
ns-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/19/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-01-5	
ns-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-02-6	
ylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-82-8	
sopropyltoluene	Not detected	ug/L	1	8260B	11/19/03	JGH	99-87-6	
thylene chloride	Not detected	ug/L	5	8260B	11/19/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/19/03	JGH	91-20-3	
Propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	103-65-1	
rene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	127-18-4	
luene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-88-3	
1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-00-5	
ichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	79-01-6	
2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/19/03	JGH	75-01-4	
Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-42-3	
Acetone	Not detected	ug/L	50	8260B	11/19/03	JGH	67-64-1	
Butanone (MEK)	Not detected	ug/L	50	8260B	11/19/03	JGH	78-93-3	
arbon disulfide	Not detected	ug/L	50	8260B	11/19/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/19/03	JGH	591-78-6	
Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/19/03	JGH	108-10-1	
rt-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/19/03	JGH	1634-04-4	
GC/MS Semi-Volatile Organics								
cenaphthene	Not detected	ug/L	10	8270C	11/17/03	ARH	83-32-9	
cenaphthylene	Not detected	ug/L	10	8270C	11/17/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-12-7	
enzo(a)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	56-55-3	
enzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	207-08-9	
enzo(ghi)perylene	Not detected	ug/L	10	8270C	11/17/03	ARH	191-24-2	
enzo(a)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/17/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	111-44-4	
s(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	108-60-1	
s(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-81-7	

Lab Sample ID: S15109.05 (continued)
Sample Tag: MW-06S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/17/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/17/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/17/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/17/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/17/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/17/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/17/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/17/03	ARH	85-01-8	
Phenol	Not detected	ug/L	10	8270C	11/17/03	ARH	108-95-2	
Pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	129-00-0	

Sample ID: S15109.05 (continued)
Sample Tag: MW-06S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
1,2,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-06-2	

Analytical Laboratory Report

Lab Sample ID: S15109.06
Sample Tag: MW-10S
Collected Date/Time: 11/06/2003 13:00
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/12/03	SD		
Extraction, PCB	Completed			3510C	11/12/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	0.048	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.07	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	0.0003	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	0.010	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/13/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	0.016	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/12/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/12/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/12/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/12/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/12/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/12/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/12/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/19/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/19/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/19/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/19/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/19/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	124-48-1	

Sample ID: S15109.06 (continued)
Sample Tag: MW-10S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-50-1	
-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-46-7	
-Dichloroethane	24	ug/L	1	8260B	11/19/03	JGH	75-34-3	
-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	75-35-4	
1,2-Dichloroethene	2	ug/L	1	8260B	11/19/03	JGH	156-59-2	
is-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-60-5	
-Dichloropropane	Not detected	ug/L	1	8260B	11/19/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-01-5	
is-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-02-6	
ylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-82-8	
sopropyltoluene	Not detected	ug/L	1	8260B	11/19/03	JGH	99-87-6	
thylene chloride	Not detected	ug/L	5	8260B	11/19/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/19/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	103-65-1	
rene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-42-5	
,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	127-18-4	
luene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-88-3	
,1-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-00-5	
richloroethene	1	ug/L	1	8260B	11/19/03	JGH	79-01-6	
,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-63-6	
,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/19/03	JGH	75-01-4	
Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-47-6	
m-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-42-3	
Acetone	Not detected	ug/L	50	8260B	11/19/03	JGH	67-64-1	
Butanone (MEK)	Not detected	ug/L	50	8260B	11/19/03	JGH	78-93-3	
rbon disulfide	Not detected	ug/L	50	8260B	11/19/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/19/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/19/03	JGH	108-10-1	
t-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/19/03	JGH	1634-04-4	
GC/MS Semi-Volatile Organics								
enaphthene	Not detected	ug/L	10	8270C	11/17/03	ARH	83-32-9	
enaphthylene	Not detected	ug/L	10	8270C	11/17/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-12-7	
nzo(a)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	56-55-3	
nzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	8270C	11/17/03	ARH	191-24-2	
nzo(a)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	50-32-8	
s(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/17/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	111-44-4	
s(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	108-60-1	
s(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-81-7	

Lab Sample ID: S15109.06 (continued)
Sample Tag: MW-10S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/17/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/17/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/17/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/17/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/17/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/17/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/17/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/17/03	ARH	85-01-8	
Phenol	Not detected	ug/L	10	8270C	11/17/03	ARH	108-95-2	
Pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	129-00-0	

Sample ID: S15109.06 (continued)
Sample Tag: MW-10S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
ganics (continued)								
GC/MS Semi-Volatile Organics (continued)								
,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-82-1	
,5-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-06-2	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.07
Sample Tag: MW-11S
Collected Date/Time: 11/06/2003 13:35
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/12/03	SD		
Extraction, PCB	Completed			3510C	11/12/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	0.031	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.41	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	0.006	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/13/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	0.009	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/12/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/12/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/12/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/12/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/12/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/12/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/12/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/19/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/19/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/19/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/19/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/19/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	124-48-1	

Sample ID: S15109.07 (continued)
Sample Tag: MW-11S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-50-1	
3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-46-7	
1-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-34-3	
2-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-60-5	
2-Dichloropropane	Not detected	ug/L	1	8260B	11/19/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	11/19/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/19/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/19/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/19/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-47-6	
m,p-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-42-3	
Acetone	Not detected	ug/L	50	8260B	11/19/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	11/19/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/19/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/19/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/19/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/19/03	JGH	1634-04-4	
GC/MS Semi-Volatile Organics								
Acenaphthene	Not detected	ug/L	10	8270C	11/17/03	ARH	83-32-9	
Acenaphthylene	Not detected	ug/L	10	8270C	11/17/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	8270C	11/17/03	ARH	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	50-32-8	
Bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/17/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	111-44-4	
Bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/17/03	ARH	108-60-1	
Bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-81-7	

Lab Sample ID: S15109.07 (continued)
Sample Tag: MW-11S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/17/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/17/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/17/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/17/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/17/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/17/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/17/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/17/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/17/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/17/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/17/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/17/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/17/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/17/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/17/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/17/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/17/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/17/03	ARH	85-01-8	
Phenol	Not detected	ug/L	10	8270C	11/17/03	ARH	108-95-2	
Pyrene	Not detected	ug/L	10	8270C	11/17/03	ARH	129-00-0	

Sample ID: S15109.07 (continued)
Sample Tag: MW-11S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
1,2,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/17/03	ARH	120-82-1	
2,4,5-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/17/03	ARH	88-06-2	

Analytical Laboratory Report

Merit Laboratories, Inc.

Lab Sample ID: S15109.08
Sample Tag: MW-12S
Collected Date/Time: 11/06/2003 12:50
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/12/03	SD		1
Extraction, PCB	Completed			3510C	11/12/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	0.009	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.12	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/13/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	0.016	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/12/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/12/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/12/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/12/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/12/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/12/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/12/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/19/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/19/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/19/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/19/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/19/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	74-87-3	

1-* PCB extract used; BNA sample broken during extraction

Sample ID: S15109.08 (continued)
Sample Tag: MW-12S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Bromochloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	124-48-1	
2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	541-73-1	
4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-46-7	
-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	75-35-4	
-1,2-Dichloroethene	2	ug/L	1	8260B	11/19/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/19/03	JGH	78-87-5	
-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-01-5	
ns-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-41-4	
propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-82-8	
sopropyltoluene	Not detected	ug/L	1	8260B	11/19/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/19/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/19/03	JGH	91-20-3	
Propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	103-65-1	
yrene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-34-5	
trachloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	127-18-4	
luene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-00-5	
ichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	79-01-6	
2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-67-8	
nyl chloride	Not detected	ug/L	1	8260B	11/19/03	JGH	75-01-4	
Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-42-3	
etone	Not detected	ug/L	50	8260B	11/19/03	JGH	67-64-1	
Butanone (MEK)	Not detected	ug/L	50	8260B	11/19/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/19/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/19/03	JGH	591-78-6	
Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/19/03	JGH	108-10-1	
t-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/19/03	JGH	1634-04-4	
C/MS Semi-Volatile Organics								
enaphthene	Not detected	ug/L	10	8270C	11/19/03	ARH	83-32-9	S
Acenaphthylene	Not detected	ug/L	10	8270C	11/19/03	ARH	208-96-8	S
thracene	Not detected	ug/L	10	8270C	11/19/03	ARH	120-12-7	S
nzo(a)anthracene	Not detected	ug/L	10	8270C	11/19/03	ARH	56-55-3	S
Benzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/19/03	ARH	205-99-2	S
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/19/03	ARH	207-08-9	S
enzo(ghi)perylene	Not detected	ug/L	10	8270C	11/19/03	ARH	191-24-2	S
enzo(a)pyrene	Not detected	ug/L	10	8270C	11/19/03	ARH	50-32-8	S
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/19/03	ARH	111-91-1	S
s(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/19/03	ARH	111-44-4	S

S-Surrogate recovery outside of control limits

Lab Sample ID: S15109.08 (continued)
Sample Tag: MW-12S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/19/03	ARH	108-60-1	S
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	117-81-7	S
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/19/03	ARH	101-55-3	S
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	85-68-7	S
4-Chloroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	106-47-8	S
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/19/03	ARH	91-58-7	S
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/19/03	ARH	59-50-7	S
2-Chlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	95-57-8	S
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/19/03	ARH	7005-72-3	S
Chrysene	Not detected	ug/L	10	8270C	11/19/03	ARH	218-01-9	S
p,m-Cresol	Not detected	ug/L	10	8270C	11/19/03	ARH	106-44-5	S
o-Cresol	Not detected	ug/L	10	8270C	11/19/03	ARH	95-48-7	S
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/19/03	ARH	53-70-3	S
Dibenzofuran	Not detected	ug/L	10	8270C	11/19/03	ARH	132-64-9	S
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	84-74-2	S
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	95-50-1	S
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	541-73-1	S
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	106-46-7	S
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/19/03	ARH	91-94-1	S
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	120-83-2	S
Diethyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	84-66-2	S
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/19/03	ARH	105-67-9	S
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	131-11-3	S
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/19/03	ARH	534-52-1	S
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	51-28-5	S
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/19/03	ARH	121-14-2	S
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/19/03	ARH	606-20-2	S
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/19/03	ARH	122-66-7	S
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	117-84-0	S
Fluoranthene	Not detected	ug/L	10	8270C	11/19/03	ARH	206-44-0	S
Fluorene	Not detected	ug/L	10	8270C	11/19/03	ARH	86-73-7	S
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	118-74-1	S
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/19/03	ARH	87-68-3	S
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/19/03	ARH	77-47-4	S
Hexachloroethane	Not detected	ug/L	10	8270C	11/19/03	ARH	67-72-1	S
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/19/03	ARH	193-39-5	S
Isophorone	Not detected	ug/L	10	8270C	11/19/03	ARH	78-59-1	S
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/19/03	ARH	91-57-6	S
Naphthalene	Not detected	ug/L	10	8270C	11/19/03	ARH	91-20-3	S
2-Nitroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	88-74-4	S
3-Nitroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	99-09-2	S
4-Nitroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	100-01-6	S
Nitrobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	98-95-3	S
2-Nitrophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	88-75-5	S
4-Nitrophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	100-02-7	S
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/19/03	ARH	156-10-5	S
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/19/03	ARH	621-64-7	S
Pentachlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	87-86-5	S

S-Surrogate recovery outside of control limits

Sample ID: S15109.08 (continued)
Sample Tag: MW-12S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
Phenanthrene	Not detected	ug/L	10	8270C	11/19/03	ARH	85-01-8	S
Phénol	Not detected	ug/L	10	8270C	11/19/03	ARH	108-95-2	S
Pyrene	Not detected	ug/L	10	8270C	11/19/03	ARH	129-00-0	S
2,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	120-82-1	S
2,4,5-Trichlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	95-95-4	S
2,4,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	88-06-2	S

S Surrogate recovery outside of control limits

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.09
Sample Tag: MW-13S
Collected Date/Time: 11/06/2003 11:45
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2
2	1 L Amber	None	Yes	4/4	2
1	125ml Plastic	HNO3	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Extraction / Prep.								
BNA Extraction	Completed			3510C	11/12/03	SD		
Extraction, PCB	Completed			3510C	11/12/03	JKB		
Mercury Digestion	Completed			7470A	11/10/03	CHD		
Metal Digestion	Completed			3015A	11/24/03	PER		
Metals								
Arsenic	Not detected	mg/L	0.002	200.8	11/24/03	PER	7440-38-2	
Barium	0.09	mg/L	0.01	200.8	11/24/03	PER	7440-39-3	
Cadmium	Not detected	mg/L	0.0002	200.8	11/24/03	PER	7440-43-9	
Chromium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-47-3	
Copper	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-50-8	
Lead	Not detected	mg/L	0.001	200.8	11/24/03	PER	7439-92-1	
Mercury	Not detected	mg/L	0.0002	245.1M	11/13/03	CHD	7439-97-6	
Selenium	Not detected	mg/L	0.005	200.8	11/24/03	PER	7782-49-2	
Silver	Not detected	mg/L	0.0005	200.8	11/24/03	PER	7440-22-4	
Zinc	Not detected	mg/L	0.005	200.8	11/24/03	PER	7440-66-6	
Organics								
PCB								
PCB-1016	Not detected	ug/L	0.1	608	11/13/03	JANB	12674-11-2	
PCB-1221	Not detected	ug/L	0.1	608	11/13/03	JANB	11104-28-2	
PCB-1232	Not detected	ug/L	0.1	608	11/13/03	JANB	11141-16-5	
PCB-1242	Not detected	ug/L	0.1	608	11/13/03	JANB	53469-21-9	
PCB-1248	Not detected	ug/L	0.1	608	11/13/03	JANB	12672-29-6	
PCB-1254	Not detected	ug/L	0.1	608	11/13/03	JANB	11097-69-1	
PCB-1260	Not detected	ug/L	0.1	608	11/13/03	JANB	11096-82-5	
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/19/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/19/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/19/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/19/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/19/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	124-48-1	

Sample ID: S15109.09 (continued)
Sample Tag: MW-13S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/19/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	11/19/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/19/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/19/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/19/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-47-6	
m,p-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-42-3	
Acetone	Not detected	ug/L	50	8260B	11/19/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	11/19/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/19/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/19/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/19/03	JGH	108-10-1	
t-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/19/03	JGH	1634-04-4	
GC/MS Semi-Volatile Organics								
Acenaphthene	Not detected	ug/L	10	8270C	11/19/03	ARH	83-32-9	
Acenaphthylene	Not detected	ug/L	10	8270C	11/19/03	ARH	208-96-8	
Anthracene	Not detected	ug/L	10	8270C	11/19/03	ARH	120-12-7	
Benzo(a)anthracene	Not detected	ug/L	10	8270C	11/19/03	ARH	56-55-3	
Benzo(b)fluoranthene	Not detected	ug/L	10	8270C	11/19/03	ARH	205-99-2	
Benzo(k)fluoranthene	Not detected	ug/L	10	8270C	11/19/03	ARH	207-08-9	
Benzo(ghi)perylene	Not detected	ug/L	10	8270C	11/19/03	ARH	191-24-2	
Benzo(a)pyrene	Not detected	ug/L	10	8270C	11/19/03	ARH	50-32-8	
bis(2-Chloroethoxy)methane	Not detected	ug/L	10	8270C	11/19/03	ARH	111-91-1	
bis(2-Chloroethyl)ether	Not detected	ug/L	10	8270C	11/19/03	ARH	111-44-4	
bis(2-Chloroisopropyl)ether	Not detected	ug/L	10	8270C	11/19/03	ARH	108-60-1	
bis(2-Ethylhexyl)phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	117-81-7	

Lab Sample ID: S15109.09 (continued)
Sample Tag: MW-13S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
4-Bromophenyl phenyl ether	Not detected	ug/L	10	8270C	11/19/03	ARH	101-55-3	
Butyl benzyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	85-68-7	
4-Chloroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	106-47-8	
2-Chloronaphthalene	Not detected	ug/L	10	8270C	11/19/03	ARH	91-58-7	
4-Chloro-3-methylphenol	Not detected	ug/L	10	8270C	11/19/03	ARH	59-50-7	
2-Chlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	95-57-8	
4-Chlorophenyl phenyl ether	Not detected	ug/L	10	8270C	11/19/03	ARH	7005-72-3	
Chrysene	Not detected	ug/L	10	8270C	11/19/03	ARH	218-01-9	
p,m-Cresol	Not detected	ug/L	10	8270C	11/19/03	ARH	106-44-5	
o-Cresol	Not detected	ug/L	10	8270C	11/19/03	ARH	95-48-7	
Dibenzo(ah)anthracene	Not detected	ug/L	10	8270C	11/19/03	ARH	53-70-3	
Dibenzofuran	Not detected	ug/L	10	8270C	11/19/03	ARH	132-64-9	
di-n-Butyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	84-74-2	
1,2-Dichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	106-46-7	
3,3'-Dichlorobenzidine	Not detected	ug/L	10	8270C	11/19/03	ARH	91-94-1	
2,4-Dichlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	120-83-2	
Diethyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	84-66-2	
2,4-Dimethylphenol	Not detected	ug/L	10	8270C	11/19/03	ARH	105-67-9	
Dimethyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	131-11-3	
4,6-Dinitro-2-methylphenol	Not detected	ug/L	10	8270C	11/19/03	ARH	534-52-1	
2,4-Dinitrophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	51-28-5	
2,4-Dinitrotoluene	Not detected	ug/L	10	8270C	11/19/03	ARH	121-14-2	
2,6-Dinitrotoluene	Not detected	ug/L	10	8270C	11/19/03	ARH	606-20-2	
1,2-Diphenylhydrazine	Not detected	ug/L	10	8270C	11/19/03	ARH	122-66-7	
di-n-Octyl phthalate	Not detected	ug/L	10	8270C	11/19/03	ARH	117-84-0	
Fluoranthene	Not detected	ug/L	10	8270C	11/19/03	ARH	206-44-0	
Fluorene	Not detected	ug/L	10	8270C	11/19/03	ARH	86-73-7	
Hexachlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	118-74-1	
Hexachlorobutadiene	Not detected	ug/L	10	8270C	11/19/03	ARH	87-68-3	
Hexachlorocyclopentadiene	Not detected	ug/L	10	8270C	11/19/03	ARH	77-47-4	
Hexachloroethane	Not detected	ug/L	10	8270C	11/19/03	ARH	67-72-1	
Indeno(1,2,3-cd)pyrene	Not detected	ug/L	10	8270C	11/19/03	ARH	193-39-5	
Isophorone	Not detected	ug/L	10	8270C	11/19/03	ARH	78-59-1	
2-Methylnaphthalene	Not detected	ug/L	10	8270C	11/19/03	ARH	91-57-6	
Naphthalene	Not detected	ug/L	10	8270C	11/19/03	ARH	91-20-3	
2-Nitroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	88-74-4	
3-Nitroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	99-09-2	
4-Nitroaniline	Not detected	ug/L	10	8270C	11/19/03	ARH	100-01-6	
Nitrobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	98-95-3	
2-Nitrophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	88-75-5	
4-Nitrophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	100-02-7	
N-Nitrosodiphenylamine	Not detected	ug/L	10	8270C	11/19/03	ARH	156-10-5	
N-Nitrosodi-n-propylamine	Not detected	ug/L	10	8270C	11/19/03	ARH	621-64-7	
Pentachlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	87-86-5	
Phenanthrene	Not detected	ug/L	10	8270C	11/19/03	ARH	85-01-8	
Phenol	Not detected	ug/L	10	8270C	11/19/03	ARH	108-95-2	
Pyrene	Not detected	ug/L	10	8270C	11/19/03	ARH	129-00-0	

Sample ID: S15109.09 (continued)
Sample Tag: MW-13S

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
GC/MS Semi-Volatile Organics (continued)								
2,4-Trichlorobenzene	Not detected	ug/L	10	8270C	11/19/03	ARH	120-82-1	
4,5-Trichlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	95-95-4	
2,4,6-Trichlorophenol	Not detected	ug/L	10	8270C	11/19/03	ARH	88-06-2	

Analytical Laboratory Report

Lab Sample ID: S15109.10
Sample Tag: GP-13 7-12
Collected Date/Time: 11/06/2003 09:50
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/19/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/19/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/19/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/19/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/19/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/19/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/19/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/19/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	11/19/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/19/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/19/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/19/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/19/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/19/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/19/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/19/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	11/19/03	JGH	106-42-3	

Sample ID: S15109.10 (continued)
Sample Tag: GP-13 7-12

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	11/19/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	11/19/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/19/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/19/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/19/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/19/03	JGH	1634-04-4	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.11
Sample Tag: GP-13 7-12 Dup
Collected Date/Time: 11/06/2003 09:50
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/20/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/20/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/20/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/20/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/20/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/20/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/20/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/20/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	11/20/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/20/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/20/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/20/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/20/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	11/20/03	JGH	106-42-3	

b Sample ID: S15109.11 (continued)
Sample Tag: GP-13 7-12 Dup

alysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
ganics (continued)								
Volatile Organics (continued)								
etone	Not detected	ug/L	50	8260B	11/20/03	JGH	67-64-1	
Butanone (MEK)	Not detected	ug/L	50	8260B	11/20/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/20/03	JGH	75-15-0	
Hexanone	Not detected	ug/L	50	8260B	11/20/03	JGH	591-78-6	
Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/20/03	JGH	108-10-1	
ert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/20/03	JGH	1634-04-4	

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Analytical Laboratory Report

Lab Sample ID: S15109.12
Sample Tag: Trip Blank
Collected Date/Time: 11/06/2003 :
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/20/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/20/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/20/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/20/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/20/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/20/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/20/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/20/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	11/20/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/20/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/20/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/20/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/20/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	11/20/03	JGH	106-42-3	

Sample ID: S15109.12 (continued)
Sample Tag: Trip Blank

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	11/20/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	11/20/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/20/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	11/20/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/20/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/20/03	JGH	1634-04-4	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15109.13
Sample Tag: Field Blank
Collected Date/Time: 11/06/2003 :
Matrix: Groundwater
COC Reference: 013150

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4/4	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	11/20/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	11/20/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	11/20/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	11/20/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	11/20/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	11/20/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	11/20/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/20/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	11/20/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	11/20/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	11/20/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	11/20/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	11/20/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	11/20/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	11/20/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	11/20/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	11/20/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	11/20/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	11/20/03	JGH	106-42-3	

) Sample ID: S15109.13 (continued)
Sample Tag: Field Blank

alysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
etone	Not detected	ug/L	50	8260B	11/20/03	JGH	67-64-1	
utanone (MEK)	Not detected	ug/L	50	8260B	11/20/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	11/20/03	JGH	75-15-0	
lexanone	Not detected	ug/L	50	8260B	11/20/03	JGH	591-78-6	
Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	11/20/03	JGH	108-10-1	
ert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	11/20/03	JGH	1634-04-4	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

C.O.C. PAGE # 1 OF 1

013150

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Babusukumar
COMPANY: Weston Solutions, Inc
ADDRESS: 750 East Bunker Court
CITY: Vernon Hills | STATE: IL | ZIP CODE: 60061
PHONE NO: 847-918-4000 | FAX NO: 847-918-4055 | P.O. NO.:
E-MAIL ADDRESS: Babu.Babusukumar@WestonSolutions.com | QUOTE NO.:

INVOICE TO

CONTACT NAME | ☐ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO. | FAX NO. | P.O. NO.

PROJECT NO./NAME: GM-Linden Rd
SAMPLER(S) - PLEASE PRINT NAME: Kirk Lapham | Ken McKow

PRESERVATIVE CODE
REFRIGERATE (Y/N)
BOTTLE TYPE: 2-40ML VOA | 1 Plastic Metals | 1 Amber SVOC | 1 Amber PCB

SAMPLE TYPE: GW ☒ WW ☐ OIL ☐ SOIL ☐ PRODUCT ☐ SLUDGE ☐ OTHER ____

A = NONE
B = HNO_3
C = H_2SO_4
D = NaOH
E = HCL
F = ____

RUSH ANALYSES ☐ DUE DATE ____
RUSH PICK-UP ☐ APPROVED BY: ____

MERIT LAB NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	# OF BOTTLES	ANALYSES
15109 01	11/6/03	1435	MW-01S	5	VOC, MI 10 Metals, SVOC, PCB
02		1605	MW-035	5	
03		1430	MW-055	5	
04		1430	MW-055 Dup	5	
05		1515	MW-065	5	
06		1300	MW-105	5	
07		1335	MW-115	5	
08		1250	MW-125	5	
09		1145	MW-135	5	
10		0950	GP-13 7-12	2	VOC only
11		0950	GP-13 7-12 Dup	2	
12		—	Trip Blank	2	
13		—	Field Blank	2	

		DATE	TIME
RELINQUISHED BY: SIGNATURE	☒ SAMPLER	11/7/03	1500
RECEIVED BY: SIGNATURE		11-07-03	1500
RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED BY: SIGNATURE		DATE	TIME

		DATE	TIME
RELINQUISHED BY: SIGNATURE		11-07-03	15:05
RECEIVED AT MERIT BY: SIGNATURE		11-07-03	15:05

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

Merit Laboratories, Inc.

Quality Control Cover Page

Report ID: S15109.01(01)
Report Date: 11/25/2003
Project: Gm-Linden Rd.
Lab Sample ID(s): S15109.01-S15109.13

Report to:

Attention: Mr. Babusukumar
Weston Solutions, Inc.
750 East Bunker Court Ste 500
Vernon Hills, IL 60061

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S15109.01	MW-01S	11/06/2003 14:35	Groundwater	Extraction / Prep., Metals, Organics
S15109.02	MW-03S	11/06/2003 16:05	Groundwater	Extraction / Prep., Metals, Organics
S15109.03	MW-05S	11/06/2003 14:30	Groundwater	Extraction / Prep., Metals, Organics
S15109.04	MW-05SDup	11/06/2003 14:30	Groundwater	Extraction / Prep., Metals, Organics
S15109.05	MW-06S	11/06/2003 15:15	Groundwater	Extraction / Prep., Metals, Organics
S15109.06	MW-10S	11/06/2003 13:00	Groundwater	Extraction / Prep., Metals, Organics
S15109.07	MW-11S	11/06/2003 13:35	Groundwater	Extraction / Prep., Metals, Organics
S15109.08	MW-12S	11/06/2003 12:50	Groundwater	Extraction / Prep., Metals, Organics
S15109.09	MW-13S	11/06/2003 11:45	Groundwater	Extraction / Prep., Metals, Organics
S15109.10	GP-13 7-12	11/06/2003 09:50	Groundwater	Organics
S15109.11	GP-13 7-12 Dup	11/06/2003 09:50	Groundwater	Organics
S15109.12	Trip Blank	11/06/2003 :	Groundwater	Organics
S15109.13	Field Blank	11/06/2003 :	Groundwater	Organics

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements.
If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mmurshak@fec-labs.com.

Sincerely,

Maya Murshak
Chemical Engineer / QA Officer

Form 0: Sequence Log

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Filename	Run Time	Sample ID	Matrix	QC Type
001.D#	Nov 24 03 00:40 pm	blank	Liquid	
002.D#	Nov 24 03 00:44 pm	std-0.00	Liquid	
003.D#	Nov 24 03 00:48 pm	std-0.02	Liquid	
004.D#	Nov 24 03 00:51 pm	std-0.05	Liquid	
005.D#	Nov 24 03 00:55 pm	std-0.20	Liquid	
006.D#	Nov 24 03 00:59 pm	Rinse	Liquid	
007.D#	Nov 24 03 01:03 pm	ICV-0.10	Liquid	ICV
008.D#	Nov 24 03 01:07 pm	Rinse	Liquid	
009.D#	Nov 24 03 01:10 pm	ICB	Liquid	ICB
010.D#	Nov 24 03 01:14 pm	BS-0.010	Liquid	BS
011.D#	Nov 24 03 01:18 pm	ERA-P086-CV	Liquid	ERA
012.D#	Nov 24 03 01:22 pm	LCS1-0.05 ppm	Liquid	LCS
013.D#	Nov 24 03 01:26 pm	Rinse	Liquid	
014.D#	Nov 24 03 01:29 pm	LRB1	Liquid	LRB
015.D#	Nov 24 03 01:33 pm	15043.02s	Liquid	S
016.D#	Nov 24 03 01:37 pm	15045.01s	Liquid	S
017.D#	Nov 24 03 01:41 pm	15046.01s	Liquid	S
018.D#	Nov 24 03 01:44 pm	15050.01s	Liquid	S
019.D#	Nov 24 03 01:48 pm	15059.02s	Liquid	S
020.D#	Nov 24 03 01:52 pm	15060.01s	Liquid	S
021.D#	Nov 24 03 01:56 pm	15061.01s	Liquid	S
022.D#	Nov 24 03 01:59 pm	15066.03s	Liquid	S
023.D#	Nov 24 03 02:03 pm	15067.01s	Liquid	S
024.D#	Nov 24 03 02:07 pm	15067.03s	Liquid	S
025.D#	Nov 24 03 02:21 pm	15046.01s	Liquid	
026.D#	Nov 24 03 02:31 pm	15067.02s	Liquid	S
027.D#	Nov 24 03 02:34 pm	15067.02 Dp	Liquid	DP
028.D#	Nov 24 03 02:38 pm	15067.02 MS-0.05	Liquid	MS
029.D#	Nov 24 03 02:42 pm	Rinse	Liquid	
030.D#	Nov 24 03 02:46 pm	CCV1-0.10	Liquid	CCV
031.D#	Nov 24 03 02:49 pm	Rinse	Liquid	
032.D#	Nov 24 03 02:53 pm	CCB1	Liquid	CCB
033.D#	Nov 24 03 02:57 pm	15074.01s	Liquid	S
034.D#	Nov 24 03 03:01 pm	15075.01s	Liquid	S
035.D#	Nov 24 03 03:04 pm	15088.01s	Liquid	S
036.D#	Nov 24 03 03:08 pm	15088.02s	Liquid	S
037.D#	Nov 24 03 03:12 pm	15090.02s	Liquid	S
038.D#	Nov 24 03 03:16 pm	15091.01s	Liquid	S
039.D#	Nov 24 03 03:19 pm	15092.01s	Liquid	S
040.D#	Nov 24 03 03:23 pm	15094.01s	Liquid	S
041.D#	Nov 24 03 03:27 pm	15107.01s	Liquid	S
042.D#	Nov 24 03 03:31 pm	15107.01 Dp	Liquid	DP
043.D#	Nov 24 03 03:35 pm	15107.01 MS-0.05	Liquid	MS
044.D#	Nov 24 03 03:39 pm	Rinse	Liquid	
045.D#	Nov 24 03 03:42 pm	CCB1	Liquid	CCB
046.D#	Nov 24 03 03:46 pm	CCV1-0.10	Liquid	CCV
047.D#	Nov 24 03 03:50 pm	blank	Liquid	
048.D#	Nov 24 03 03:54 pm	std-0.00	Liquid	
049.D#	Nov 24 03 03:58 pm	std-0.02	Liquid	
050.D#	Nov 24 03 04:02 pm	std-0.05	Liquid	
051.D#	Nov 24 03 04:06 pm	std-0.20	Liquid	
052.D#	Nov 24 03 04:10 pm	Rinse	Liquid	
053.D#	Nov 24 03 04:14 pm	ICV-0.10	Liquid	ICV

Form 0: Sequence Log

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Filename	*Run Time*	*Sample ID*	*Matrix*	*QC Type*
054.D#	Nov 24 03 04:21 pm	11/24 LCS1-0.05 ppm	Liquid	LCS
055.D#	Nov 24 03 04:24 pm	Rinse	Liquid	
056.D#	Nov 24 03 04:28 pm	11/24 LRB1	Liquid	LRB
057.D#	Nov 24 03 04:32 pm	ICB	Liquid	ICB
058.D#	Nov 24 03 04:41 pm	15109.01s	Liquid	S
059.D#	Nov 24 03 04:45 pm	15109.02s	Liquid	S
060.D#	Nov 24 03 04:49 pm	15109.03s	Liquid	S
061.D#	Nov 24 03 04:52 pm	15109.04s	Liquid	S
062.D#	Nov 24 03 04:56 pm	15109.05s	Liquid	S
063.D#	Nov 24 03 05:00 pm	15109.06s	Liquid	S
064.D#	Nov 24 03 05:04 pm	15109.07s	Liquid	S
065.D#	Nov 24 03 05:08 pm	15109.08s	Liquid	S
066.D#	Nov 24 03 05:11 pm	15109.09s	Liquid	S
067.D#	Nov 24 03 05:15 pm	15109.09 Dp	Liquid	DP
068.D#	Nov 24 03 05:19 pm	15109.09 MS-0.05	Liquid	MS
069.D#	Nov 24 03 05:23 pm	Rinse	Liquid	
070.D#	Nov 24 03 05:27 pm	CCV1-0.10	Liquid	CCV
071.D#	Nov 24 03 05:30 pm	Rinse	Liquid	
072.D#	Nov 24 03 05:34 pm	CCB1	Liquid	CCB
073.D#	Nov 24 03 05:46 pm	15103.01s	Liquid	S
074.D#	Nov 24 03 05:49 pm	15108.01s	Liquid	S
075.D#	Nov 24 03 05:53 pm	15108.02s	Liquid	S
076.D#	Nov 24 03 05:57 pm	15207.01s	Liquid	S
077.D#	Nov 24 03 06:01 pm	15249.01s	Liquid	S
078.D#	Nov 24 03 06:05 pm	15260.01s	Liquid	S
079.D#	Nov 24 03 07:32 pm	Rinse	Liquid	
080.D#	Nov 24 03 07:37 pm	15266.01s	Liquid	S
081.D#	Nov 24 03 07:41 pm	15266.01 Dp	Liquid	DP
082.D#	Nov 24 03 07:44 pm	15266.01 MS-0.05	Liquid	MS
083.D#	Nov 24 03 07:47 pm	Rinse	Liquid	
084.D#	Nov 24 03 07:51 pm	CCB1	Liquid	CCB
085.D#	Nov 24 03 07:54 pm	CCV1-0.10	Liquid	CCV

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
007.D# ICV-0.10	ICV	1.00	Cr	0.104	0.10	104	90/110	mg/L	Liquid
			Ni	0.103	0.10	103	90/110		
			Cu	0.103	0.10	103	90/110		
			Zn	0.106	0.10	106	90/110		
			As	0.104	0.10	104	90/110		
			Se	0.105	0.10	105	90/110		
			Mo	0.106	0.10	106	90/110		
			Ag	0.103	0.10	103	90/110		
			Cd	0.103	0.10	103	90/110		
			Ba	0.11	0.10	110	90/110		
			Pb	0.103	0.10	103	90/110		
030.D# CCV1-0.10	CCV	1.00	Cr	0.099	0.10	99	90/110	mg/L	Liquid
			Ni	0.099	0.10	99	90/110		
			Cu	0.099	0.10	99	90/110		
			Zn	0.096	0.10	96	90/110		
			As	0.098	0.10	98	90/110		
			Se	0.093	0.10	93	90/110		
			Mo	0.098	0.10	98	90/110		
			Ag	0.0972	0.10	97	90/110		
			Cd	0.0962	0.10	96	90/110		
			Ba	0.10	0.10	100	90/110		
			Pb	0.100	0.10	100	90/110		
046.D# CCV1-0.10	CCV	1.00	Cr	0.095	0.10	95	90/110	mg/L	Liquid
			Ni	0.097	0.10	97	90/110		
			Cu	0.099	0.10	99	90/110		
			Zn	0.095	0.10	95	90/110		
			As	0.097	0.10	97	90/110		
			Se	0.092	0.10	92	90/110		
			Mo	0.096	0.10	96	90/110		
			Ag	0.0984	0.10	98	90/110		
			Cd	0.0969	0.10	97	90/110		
			Ba	0.10	0.10	100	90/110		
			Pb	0.099	0.10	99	90/110		
053.D# ICV-0.10	ICV	1.00	Cr	0.103	0.10	103	90/110	mg/L	Liquid
			Ni	0.105	0.10	105	90/110		
			Cu	0.104	0.10	104	90/110		
			Zn	0.106	0.10	106	90/110		
			As	0.105	0.10	105	90/110		
			Se	0.105	0.10	105	90/110		
			Mo	0.104	0.10	104	90/110		
			Ag	0.103	0.10	103	90/110		
			Cd	0.103	0.10	103	90/110		
			Ba	0.11	0.10	110	90/110		
			Pb	0.102	0.10	102	90/110		
070.D# CCV1-0.10	CCV	1.00	Cr	0.102	0.10	102	90/110	mg/L	Liquid
			Ni	0.100	0.10	100	90/110		
			Cu	0.100	0.10	100	90/110		
			Zn	0.098	0.10	98	90/110		
			As	0.096	0.10	96	90/110		
			Se	0.098	0.10	98	90/110		
			Mo	0.097	0.10	97	90/110		
			Ag	0.0989	0.10	99	90/110		
			Cd	0.0983	0.10	98	90/110		
			Ba	0.10	0.10	100	90/110		

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
070.D# CCV1-0.10	CCV	1.00	Pb	0.099	0.10	99	90/110	mg/L	Liquid
085.D# CCV1-0.10	CCV	1.00	Cr	0.095	0.10	95	90/110	mg/L	Liquid
			Ni	0.094	0.10	94	90/110		
			Cu	0.095	0.10	95	90/110		
			Zn	0.097	0.10	97	90/110		
			As	0.099	0.10	99	90/110		
			Se	0.102	0.10	102	90/110		
			Mo	0.095	0.10	95	90/110		
			Ag	0.0964	0.10	96	90/110		
			Cd	0.0992	0.10	99	90/110		
			Ba	0.10	0.10	100	90/110		
			Pb	0.098	0.10	98	90/110		

Form 2B: Performance Sample Evaluation

ERA Lot No.: P086

Data Set ID: MT-03-1124A

Instrument ID: HP ICP/MS

Analysis Date: Nov 24 03

Analyst: PAUL ROETTGER

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
011.D# ERA-P086-CV	2.00	Cr	0.290	0.291	100	0.262	0.318	mg/L	Liquid
		Ni	1.10	1.130	97	0.980	1.200		
		Cu	0.342	0.351	97	0.311	0.381		
		Zn	0.354	0.340	104	0.303	0.383		
		As	0.175	0.173	101	0.142	0.194		
		Se	0.626	0.603	104	0.541	0.663		
		Mo	0.141	0.153	92	0.135	0.167		
		Ag	0.161	0.163	99	0.143	0.183		
		Cd	0.573	0.577	99	0.496	0.612		
		Ba	0.29	0.268	108	0.250	0.309		
		Pb	0.382	0.376	102	0.331	0.421		

Form 3: Blanks

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Sample Name	QC Type	Dilute	Element	Sample Conc	Raw Conc	Units	Matrix
009.D# ICB	ICB	1.00	Cr	<0.005	<0.000	mg/L	Liquid
			Ni	<0.002	0.00001377		
			Cu	<0.001	0.00004748		
			Zn	<0.005	0.00003270		
			As	<0.001	0.0003173		
			Se	<0.002	0.0005847		
			Mo	<0.005	0.001940		
			Ag	<0.0005	0.00008508		
			Cd	<0.0002	0.000009542		
			Ba	<0.01	0.00003056		
			Pb	<0.002	0.00001425		
014.D# LRB1	LRB	1.00	Cr	<0.005	<0.000	mg/L	Liquid
			Ni	<0.002	<0.000		
			Cu	<0.001	.0000007210		
			Zn	<0.005	<0.000		
			As	<0.001	0.0003299		
			Se	<0.002	0.001271		
			Mo	<0.005	0.001406		
			Ag	<0.0005	0.00004621		
			Cd	<0.0002	0.000001545		
			Ba	<0.01	<0.000		
			Pb	<0.002	<0.000		
032.D# CCB1	CCB	1.00	Cr	<0.005	0.00001703	mg/L	Liquid
			Ni	<0.002	0.00001046		
			Cu	<0.001	0.00004732		
			Zn	<0.005	<0.000		
			As	<0.001	0.0003843		
			Se	<0.002	0.0008868		
			Mo	<0.005	0.001461		
			Ag	<0.0005	0.00007156		
			Cd	<0.0002	0.000009775		
			Ba	<0.01	0.00002923		
			Pb	<0.002	<0.000		
045.D# CCB1	CCB	1.00	Cr	<0.005	0.000009803	mg/L	Liquid
			Ni	<0.002	0.00001029		
			Cu	<0.001	0.00003831		
			Zn	<0.005	<0.000		
			As	<0.001	0.0002104		
			Se	<0.002	0.0003852		
			Mo	<0.005	0.0007611		
			Ag	<0.0005	0.00003912		
			Cd	<0.0002	0.000007307		
			Ba	<0.01	0.00002926		
			Pb	<0.002	0.000004456		
056.D# 11/24 LRB1	LRB	1.00	Cr	<0.005	<0.000	mg/L	Liquid
			Ni	<0.002	0.00001514		
			Cu	<0.001	<0.000		
			Zn	<0.005	0.0008354		
			As	<0.001	0.00007673		
			Se	<0.002	<0.000		
			Mo	<0.005	0.00005579		
			Ag	<0.0005	0.000006976		
			Cd	<0.0002	<0.000		
			Ba	<0.01	0.00001384		

Form 3: Blanks

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Sample Name	QC Type	Dilute	Element	Sample Conc	Raw Conc	Units	Matrix
056.D# 11/24 LRB1	LRB	1.00	Pb	<0.002	<0.000	mg/L	Liquid
057.D# ICB	ICB	1.00	Cr	<0.005	<0.000	mg/L	Liquid
			Ni	<0.002	0.00001936		
			Cu	<0.001	<0.000		
			Zn	<0.005	<0.000		
			As	<0.001	0.0001413		
			Se	<0.002	0.00005774		
			Mo	<0.005	<0.000		
			Ag	<0.0005	0.00001460		
			Cd	<0.0002	0.00001899		
			Ba	<0.01	<0.000		
			Pb	<0.002	0.000003808		
072.D# CCB1	CCB	1.00	Cr	<0.005	<0.000	mg/L	Liquid
			Ni	<0.002	0.00004318		
			Cu	<0.001	0.000008643		
			Zn	<0.005	<0.000		
			As	<0.001	0.0001894		
			Se	<0.002	<0.000		
			Mo	<0.005	0.0001034		
			Ag	<0.0005	0.0003466		
			Cd	<0.0002	0.00001243		
			Ba	<0.01	0.00002519		
			Pb	<0.002	0.00002631		
084.D# CCB1	CCB	1.00	Cr	<0.005	0.00004127	mg/L	Liquid
			Ni	<0.002	0.00003618		
			Cu	<0.001	0.00001162		
			Zn	<0.005	<0.000		
			As	<0.001	0.00002234		
			Se	<0.002	<0.000		
			Mo	<0.005	0.0001629		
			Ag	<0.0005	0.00006275		
			Cd	<0.0002	0.00003389		
			Ba	<0.01	0.00002145		
			Pb	<0.002	0.00008466		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
010.D# BS-0.010		1.00	Cr	0.010	ND	0.010	100	70/130	mg/L	Liquid
			Ni	0.010	ND	0.010	100	70/130		
			Cu	0.010	ND	0.010	100	70/130		
			Zn	0.011	ND	0.010	110	70/130		
			As	0.010	ND	0.010	100	70/130		
			Se	0.010	ND	0.010	100	70/130		
			Mo	0.011	ND	0.010	110	70/130		
			Ag	0.0096	ND	0.010	96	70/130		
			Cd	0.0097	ND	0.010	97	70/130		
			Ba	0.01	ND	0.010	100	70/130		
			Pb	0.010	ND	0.010	100	70/130		
028.D# 15067.02	026.D# 15067.02s	5.00	Cr	0.245	<0.005	0.25	98	70/130	mg/L	Liquid
			Ni	0.243	<0.005	0.25	97	70/130		
			Cu	0.254	<0.005	0.25	102	70/130		
			Zn	0.269	0.029	0.25	96	70/130		
			As	0.241	0.003	0.25	95	70/130		
			Se	0.221	<0.005	0.25	88	70/130		
			Mo	0.241	<0.005	0.25	96	70/130		
			Ag	0.236	<0.0005	0.25	94	70/130		
			Cd	0.241	<0.0002	0.25	96	70/130		
			Ba	0.26	0.02	0.25	96	70/130		
			Pb	0.282	0.002	0.25	112	70/130		
043.D# 15107.01	041.D# 15107.01s	5.00	Cr	0.268	0.028	0.25	96	70/130	mg/L	Liquid
			Ni	0.268	0.035	0.25	93	70/130		
			Cu	0.250	0.012	0.25	95	70/130		
			Zn	0.302	0.066	0.25	94	70/130		
			As	0.239	0.002	0.25	95	70/130		
			Se	0.235	<0.005	0.25	94	70/130		
			Mo	0.267	0.016	0.25	100	70/130		
			Ag	0.243	<0.0005	0.25	97	70/130		
			Cd	0.248	0.0002	0.25	99	70/130		
			Ba	0.29	0.03	0.25	104	70/130		
			Pb	0.255	0.001	0.25	102	70/130		
068.D# 15109.09	066.D# 15109.09s	5.00	Cr	0.255	<0.005	0.25	102	70/130	mg/L	Liquid
			Ni	0.327	0.083	0.25	98	70/130		
			Cu	0.249	<0.005	0.25	100	70/130		
			Zn	0.240	<0.005	0.25	96	70/130		
			As	0.249	0.002	0.25	99	70/130		
			Se	0.240	<0.005	0.25	96	70/130		
			Mo	0.261	<0.005	0.25	104	70/130		
			Ag	0.238	<0.0005	0.25	95	70/130		
			Cd	0.242	<0.0002	0.25	97	70/130		
			Ba	0.34	0.09	0.25	100	70/130		
			Pb	0.236	<0.001	0.25	94	70/130		
082.D# 15266.01	080.D# 15266.01s	5.00	Cr	0.379	0.147	0.25	93	70/130	mg/L	Liquid
			Ni	0.257	0.025	0.25	93	70/130		
			Cu	0.240	0.005	0.25	94	70/130		
			Zn	1.06	0.858	0.25	81	70/130		
			As	0.258	0.004	0.25	102	70/130		
			Se	0.264	<0.005	0.25	106	70/130		
			Mo	0.354	0.090	0.25	106	70/130		
			Ag	0.248	<0.0005	0.25	99	70/130		
			Cd	0.254	<0.0002	0.25	102	70/130		
			Ba	0.45	0.18	0.25	108	70/130		

Form 5A: Matrix Spike Sample Recovery

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
082.D# 15266.01	080.D# 15266.01s	5.00	Pb	0.239	0.002	0.25	95	70/130	mg/L	Liquid

Form 6: Duplicates

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Duplicate Name	Sample Name	Dilute	Element	Dup Conc	Samp Conc	%RPD	LCL/UCL	Units	Matrix
027.D# 15067.02 Dp	026.D# 15067.02s	5.00	Cr	<0.005	<0.005	NC	0/20	mg/L	Liquid
			Ni	<0.005	<0.005	NC	0/20		
			Cu	<0.005	<0.005	NC	0/20		
			Zn	0.030	0.029	3	0/20		
			As	0.003	0.003	0	0/20		
			Se	<0.005	<0.005	NC	0/20		
			Mo	<0.005	<0.005	NC	0/20		
			Ag	<0.0005	<0.0005	NC	0/20		
			Cd	<0.0002	<0.0002	NC	0/20		
			Ba	0.02	0.02	0	0/20		
			Pb	0.002	0.002	0	0/20		
042.D# 15107.01 Dp	041.D# 15107.01s	5.00	Cr	0.029	0.028	4	0/20	mg/L	Liquid
			Ni	0.038	0.035	8	0/20		
			Cu	0.012	0.012	0	0/20		
			Zn	0.068	0.066	3	0/20		
			As	0.002	0.002	0	0/20		
			Se	<0.005	<0.005	NC	0/20		
			Mo	0.016	0.016	0	0/20		
			Ag	<0.0005	<0.0005	NC	0/20		
			Cd	0.0002	0.0002	0	0/20		
			Ba	0.03	0.03	0	0/20		
			Pb	0.001	0.001	0	0/20		
067.D# 15109.09 Dp	066.D# 15109.09s	5.00	Cr	<0.005	<0.005	NC	0/20	mg/L	Liquid
			Ni	0.083	0.083	0	0/20		
			Cu	<0.005	<0.005	NC	0/20		
			Zn	<0.005	<0.005	NC	0/20		
			As	0.002	0.002	0	0/20		
			Se	<0.005	<0.005	NC	0/20		
			Mo	<0.005	<0.005	NC	0/20		
			Ag	<0.0005	<0.0005	NC	0/20		
			Cd	<0.0002	<0.0002	NC	0/20		
			Ba	0.09	0.09	0	0/20		
			Pb	<0.001	<0.001	NC	0/20		
081.D# 15266.01 Dp	080.D# 15266.01s	5.00	Cr	0.132	0.147	11	0/20	mg/L	Liquid
			Ni	0.025	0.025	0	0/20		
			Cu	0.005	0.005	0	0/20		
			Zn	0.855	0.858	0	0/20		
			As	0.004	0.004	0	0/20		
			Se	<0.005	<0.005	NC	0/20		
			Mo	0.096	0.090	6	0/20		
			Ag	<0.0005	<0.0005	NC	0/20		
			Cd	<0.0002	<0.0002	NC	0/20		
			Ba	0.19	0.18	5	0/20		
			Pb	0.002	0.002	0	0/20		

Form 7: Laboratory Control Sample

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
012.D# LCS1-0.05 ppm	1.00	Cr	0.050	0.05	100	85/115	mg/L	Liquid
		Ni	0.051	0.05	102	85/115		
		Cu	0.051	0.05	102	85/115		
		Zn	0.051	0.05	102	85/115		
		As	0.051	0.05	102	85/115		
		Se	0.054	0.05	108	85/115		
		Mo	0.054	0.05	108	85/115		
		Ag	0.0490	0.05	98	85/115		
		Cd	0.0490	0.05	98	85/115		
		Ba	0.05	0.05	100	85/115		
		Pb	0.049	0.05	98	85/115		
054.D# 11/24 LCS1-0.05 ppm	1.00	Cr	0.050	0.05	100	85/115	mg/L	Liquid
		Ni	0.051	0.05	102	85/115		
		Cu	0.050	0.05	100	85/115		
		Zn	0.050	0.05	100	85/115		
		As	0.052	0.05	104	85/115		
		Se	0.053	0.05	106	85/115		
		Mo	0.050	0.05	100	85/115		
		Ag	0.0492	0.05	98	85/115		
		Cd	0.0497	0.05	99	85/115		
		Ba	0.05	0.05	100	85/115		
		Pb	0.049	0.05	98	85/115		

Form 13: Analysis Run Log

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Filename	Run Time	Matrix	Analytes
001.D# blank	Nov 24 03 00:40 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
002.D# std-0.00	Nov 24 03 00:44 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
003.D# std-0.02	Nov 24 03 00:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
004.D# std-0.05	Nov 24 03 00:51 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
005.D# std-0.20	Nov 24 03 00:55 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
006.D# Rinse	Nov 24 03 00:59 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
007.D# ICV-0.10	Nov 24 03 01:03 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
008.D# Rinse	Nov 24 03 01:07 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
009.D# ICB	Nov 24 03 01:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
010.D# BS-0.010	Nov 24 03 01:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
011.D# ERA-P086-CV	Nov 24 03 01:18 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
012.D# LCS1-0.05 ppm	Nov 24 03 01:22 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
013.D# Rinse	Nov 24 03 01:26 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
014.D# LRB1	Nov 24 03 01:29 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
015.D# 15043.02s	Nov 24 03 01:33 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
016.D# 15045.01s	Nov 24 03 01:37 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
017.D# 15046.01s	Nov 24 03 01:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
018.D# 15050.01s	Nov 24 03 01:44 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
019.D# 15059.02s	Nov 24 03 01:48 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
020.D# 15060.01s	Nov 24 03 01:52 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
021.D# 15061.01s	Nov 24 03 01:56 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
022.D# 15066.03s	Nov 24 03 01:59 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
023.D# 15067.01s	Nov 24 03 02:03 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
024.D# 15067.03s	Nov 24 03 02:07 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
025.D# 15046.01s	Nov 24 03 02:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
026.D# 15067.02s	Nov 24 03 02:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
027.D# 15067.02 Dp	Nov 24 03 02:34 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
028.D# 15067.02 MS-0.05	Nov 24 03 02:38 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
029.D# Rinse	Nov 24 03 02:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
030.D# CCV1-0.10	Nov 24 03 02:46 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
031.D# Rinse	Nov 24 03 02:49 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
032.D# CCB1	Nov 24 03 02:53 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
033.D# 15074.01s	Nov 24 03 02:57 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
034.D# 15075.01s	Nov 24 03 03:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
035.D# 15088.01s	Nov 24 03 03:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
036.D# 15088.02s	Nov 24 03 03:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
037.D# 15090.02s	Nov 24 03 03:12 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
038.D# 15091.01s	Nov 24 03 03:16 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
039.D# 15092.01s	Nov 24 03 03:19 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
040.D# 15094.01s	Nov 24 03 03:23 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
041.D# 15107.01s	Nov 24 03 03:27 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
042.D# 15107.01 Dp	Nov 24 03 03:31 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
043.D# 15107.01 MS-0.05	Nov 24 03 03:35 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
044.D# Rinse	Nov 24 03 03:39 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
045.D# CCB1	Nov 24 03 03:42 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
046.D# CCV1-0.10	Nov 24 03 03:46 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
047.D# blank	Nov 24 03 03:50 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
048.D# std-0.00	Nov 24 03 03:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
049.D# std-0.02	Nov 24 03 03:58 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
050.D# std-0.05	Nov 24 03 04:02 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
051.D# std-0.20	Nov 24 03 04:06 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
052.D# Rinse	Nov 24 03 04:10 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
053.D# ICV-0.10	Nov 24 03 04:14 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn

Form 13: Analysis Run Log

Data Set ID: MT-03-1124A
Analysis Date: Nov 24 03

Instrument ID: HP ICP/MS
Analyst: PAUL ROETTGER

Filename	Run Time	Matrix	Analytes
054.D# 11/24 LCS1-0.05 ppm	Nov 24 03 04:21 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
055.D# Rinse	Nov 24 03 04:24 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
056.D# 11/24 LRB1	Nov 24 03 04:28 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
057.D# ICB	Nov 24 03 04:32 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
058.D# 15109.01s	Nov 24 03 04:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
059.D# 15109.02s	Nov 24 03 04:45 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
060.D# 15109.03s	Nov 24 03 04:49 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
061.D# 15109.04s	Nov 24 03 04:52 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
062.D# 15109.05s	Nov 24 03 04:56 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
063.D# 15109.06s	Nov 24 03 05:00 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
064.D# 15109.07s	Nov 24 03 05:04 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
065.D# 15109.08s	Nov 24 03 05:08 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
066.D# 15109.09s	Nov 24 03 05:11 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
067.D# 15109.09 Dp	Nov 24 03 05:15 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
068.D# 15109.09 MS-0.05	Nov 24 03 05:19 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
069.D# Rinse	Nov 24 03 05:23 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
070.D# CCV1-0.10	Nov 24 03 05:27 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
071.D# Rinse	Nov 24 03 05:30 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
072.D# CCB1	Nov 24 03 05:34 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
073.D# 15103.01s	Nov 24 03 05:46 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
074.D# 15108.01s	Nov 24 03 05:49 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
075.D# 15108.02s	Nov 24 03 05:53 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
076.D# 15207.01s	Nov 24 03 05:57 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
077.D# 15249.01s	Nov 24 03 06:01 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
078.D# 15260.01s	Nov 24 03 06:05 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
079.D# Rinse	Nov 24 03 07:32 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
080.D# 15266.01s	Nov 24 03 07:37 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
081.D# 15266.01 Dp	Nov 24 03 07:41 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
082.D# 15266.01 MS-0.05	Nov 24 03 07:44 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
083.D# Rinse	Nov 24 03 07:47 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
084.D# CCB1	Nov 24 03 07:51 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn
085.D# CCV1-0.10	Nov 24 03 07:54 pm	Liquid	Ag,As,Ba,Cd,Cr,Cu,Mo,Ni,Pb,Se,Zn

Form 0: Sequence Log

Data Set ID: HG-03-1113A
Analysis Date: Nov 13 03

Instrument ID: HG
Analyst: BRP

Filename	Run Time	Sample ID	Matrix	QC Type
001	Nov 13 03 16:43	0.00		
002	Nov 13 03 16:49	0.50-H092603		
003	Nov 13 03 16:54	1.00-H092603		
004	Nov 13 03 17:00	2.00-H092603		
005	Nov 13 03 17:05	4.00-H092603		
006	Nov 13 03 17:10	10.0-H092603		
007	Nov 13 03 17:16	Rinse	Liquid	
008	Nov 13 03 17:21	ICB	Liquid	ICB
009	Nov 13 03 17:26	ERA-P0885-092603	Liquid	ERA
010	Nov 13 03 17:32	ICV5-5.0-S092603	Liquid	ICV
011	Nov 13 03 17:37	100.0-H092603	Liquid	
012	Nov 13 03 17:43	Rinse	Liquid	
013	Nov 13 03 17:48	Rinse	Liquid	
014	Nov 13 03 17:53	CCV1-2.0-H092603	Liquid	CCV
015	Nov 13 03 17:59	CCB1	Liquid	CCB
016	Nov 13 03 18:04	LCS1-2.0	Liquid	LCS
017	Nov 13 03 18:09	Rinse	Liquid	
018	Nov 13 03 18:15	LRB1	Liquid	LRB
019	Nov 13 03 18:20	14940.02s	Liquid	S
020	Nov 13 03 18:26	Rinse		
021	Nov 13 03 18:31	15028.03s	Liquid	S
022	Nov 13 03 18:36	15004.01s	Liquid	S
023	Nov 13 03 18:42	15028.01s	Liquid	S
024	Nov 13 03 18:47	15109.04s	Liquid	S
025	Nov 13 03 18:52	15109.05s	Liquid	S
026	Nov 13 03 18:58	15109.06s	Liquid	S
027	Nov 13 03 19:03	15109.07s	Liquid	S
028	Nov 13 03 19:09	15109.08s	Liquid	S
029	Nov 13 03 19:14	15109.09s	Liquid	S
030	Nov 13 03 19:19	15109.09 dp	Liquid	DP
031	Nov 13 03 19:25	15109.09 sp-2.0	Liquid	MS
032	Nov 13 03 19:30	Rinse	Liquid	
033	Nov 13 03 19:35	CCV2-2.0-H092603	Liquid	CCV
034	Nov 13 03 19:41	Rinse	Liquid	
035	Nov 13 03 19:46	CCB2	Liquid	CCB

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG-03-1113A
Instrument ID: HG
Analysis Date: Nov 13 03
Analyst: BRP

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
010 ICV5-5.0-S092603	ICV	1.00	Hg	5.4	5.0	108	90/110	ug/L	Liquid
014 CCV1-2.0-H092603	CCV	1.00	Hg	2.0	2.0	100	80/120	ug/L	Liquid
033 CCV2-2.0-H092603	CCV	1.00	Hg	2.0	2.0	100	80/120	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: P885

Data Set ID: HG-03-1113A

Instrument ID: HG

Analysis Date: Nov 13 03

Analyst: BRP

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
009 ERA-P0885-092603	1.00	Hg	4.9	4.32	113	3.24	5.40	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG-03-1113A
Instrument ID: HG
Analysis Date: Nov 13 03
Analyst: BRP

Sample Name	QC Type	Dilute	Element	Sample Conc	Raw Conc	Units	Matrix
008 ICB	ICB	1.00	Hg	<0.10	-0.0267	ug/L	Liquid
015 CCB1	CCB	1.00	Hg	<0.10	0.0059	ug/L	Liquid
018 LRB1	LRB	1.00	Hg	<0.10	-0.0301	ug/L	Liquid
035 CCB2	CCB	1.00	Hg	<0.10	-0.0281	ug/L	Liquid

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG-03-1113A
Instrument ID: HG
Analysis Date: Nov 13 03
Analyst: BRP

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
031 15109.09 sp-2.0	029 15109.09s	1.00	Hg	2.5	<0.2	2.00	125	70/130	ug/L	Liquid

Form 6: Duplicates

Data Set ID: HG-03-1113A
Instrument ID: HG
Analysis Date: Nov 13 03
Analyst: BRP

Duplicate Name	Sample Name	Dilute	Element	Dup Conc	Samp Conc	%RPD	LCL/UCL	Units	Matrix
030 15109.09 dp	029 15109.09s	1.00	Hg	<0.2	<0.2	NC	0/20	ug/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: HG-03-1113A
Instrument ID: HG
Analysis Date: Nov 13 03
Analyst: BRP

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
016 LCS1-2.0	1.00	Hg	2.0	2.0	100	85/115	ug/L	Liquid

Form 13: Analysis Run Log

Data Set ID: HG-03-1113A
Analysis Date: Nov 13 03

Instrument ID: HG
Analyst: BRP

Filename	*Run Time*	*Matrix*	*Analytes*
001 0.00	Nov 13 03 16:43		Hg
002 0.50-H092603	Nov 13 03 16:49		Hg
003 1.00-H092603	Nov 13 03 16:54		Hg
004 2.00-H092603	Nov 13 03 17:00		Hg
005 4.00-H092603	Nov 13 03 17:05		Hg
006 10.0-H092603	Nov 13 03 17:10		Hg
007 Rinse	Nov 13 03 17:16	Liquid	Hg
008 ICB	Nov 13 03 17:21	Liquid	Hg
009 ERA-P0885-092603	Nov 13 03 17:26	Liquid	Hg
010 ICV5-5.0-S092603	Nov 13 03 17:32	Liquid	Hg
011 100.0-H092603	Nov 13 03 17:37	Liquid	Hg
012 Rinse	Nov 13 03 17:43	Liquid	Hg
013 Rinse	Nov 13 03 17:48	Liquid	Hg
014 CCV1-2.0-H092603	Nov 13 03 17:53	Liquid	Hg
015 CCB1	Nov 13 03 17:59	Liquid	Hg
016 LCS1-2.0	Nov 13 03 18:04	Liquid	Hg
017 Rinse	Nov 13 03 18:09	Liquid	Hg
018 LRB1	Nov 13 03 18:15	Liquid	Hg
019 14940.02s	Nov 13 03 18:20	Liquid	Hg
020 Rinse	Nov 13 03 18:26		Hg
021 15028.03s	Nov 13 03 18:31	Liquid	Hg
022 15004.01s	Nov 13 03 18:36	Liquid	Hg
023 15028.01s	Nov 13 03 18:42	Liquid	Hg
024 15109.04s	Nov 13 03 18:47	Liquid	Hg
025 15109.05s	Nov 13 03 18:52	Liquid	Hg
026 15109.06s	Nov 13 03 18:58	Liquid	Hg
027 15109.07s	Nov 13 03 19:03	Liquid	Hg
028 15109.08s	Nov 13 03 19:09	Liquid	Hg
029 15109.09s	Nov 13 03 19:14	Liquid	Hg
030 15109.09 dp	Nov 13 03 19:19	Liquid	Hg
031 15109.09 sp-2.0	Nov 13 03 19:25	Liquid	Hg
032 Rinse	Nov 13 03 19:30	Liquid	Hg
033 CCV2-2.0-H092603	Nov 13 03 19:35	Liquid	Hg
034 Rinse	Nov 13 03 19:41	Liquid	Hg
035 CCB2	Nov 13 03 19:46	Liquid	Hg

Form 0: Sequence Log

Data Set ID: HG-03-1114A
Analysis Date: Nov 14 03

Instrument ID: HG
Analyst: BRP

Filename	Run Time	Sample ID	Matrix	QC Type
001	Nov 14 03 10:28	0.00		
002	Nov 14 03 10:33	0.50-H092603		
003	Nov 14 03 10:39	1.00-H092603		
004	Nov 14 03 10:44	2.00-H092603		
005	Nov 14 03 10:49	4.00-H092603		
006	Nov 14 03 10:55	10.0-H092603		
007	Nov 14 03 11:00	Rinse	Liquid	
008	Nov 14 03 11:06	ICB	Liquid	ICB
009	Nov 14 03 11:11	ERA-P0885-092603	Liquid	ERA
010	Nov 14 03 11:16	ICV5-5.0-S092603	Liquid	ICV
011	Nov 14 03 11:22	100.0-H092603	Liquid	
012	Nov 14 03 11:27	Rinse	Liquid	
013	Nov 14 03 11:32	Rinse	Liquid	
014	Nov 14 03 11:38	CCV1-2.0-H092603	Liquid	CCV
015	Nov 14 03 11:43	CCB1	Liquid	CCB
016	Nov 14 03 11:49	LCS1-2.0	Liquid	LCS
017	Nov 14 03 11:54	Rinse	Liquid	
018	Nov 14 03 11:59	LRB1	Liquid	LRB
019	Nov 14 03 12:05	15093.01s	Liquid	S
020	Nov 14 03 12:10	15093.02s	Liquid	S
021	Nov 14 03 12:15	14975.02s	Liquid	S
022	Nov 14 03 12:21	15000.02s	Liquid	S
023	Nov 14 03 12:26	15000.03s	Liquid	S
024	Nov 14 03 12:32	15001.01s	Liquid	S
025	Nov 14 03 12:37	15003.01s	Liquid	S
026	Nov 14 03 12:42	15003.02s	Liquid	S
027	Nov 14 03 12:48	15003.03s	Liquid	S
028	Nov 14 03 12:53	14816.01s	Liquid	S
029	Nov 14 03 12:58	14816.01 dp	Liquid	DP
030	Nov 14 03 13:04	14816.01 sp-2.0	Liquid	MS
031	Nov 14 03 13:09	Rinse	Liquid	
032	Nov 14 03 13:15	CCV2-2.0-H092603	Liquid	CCV
033	Nov 14 03 13:20	Rinse	Liquid	
034	Nov 14 03 13:25	CCB2	Liquid	CCB
035	Nov 14 03 13:31	15094.01s	Liquid	S
036	Nov 14 03 13:36	15096.01s	Liquid	S
037	Nov 14 03 13:41	15096.02s	Liquid	S
038	Nov 14 03 13:47	15098.01s	Liquid	S
039	Nov 14 03 13:52	15098.02s	Liquid	S
040	Nov 14 03 13:58	15098.03s	Liquid	S
041	Nov 14 03 14:03	15098.04s	Liquid	S
042	Nov 14 03 14:08	15098.05s	Liquid	S
043	Nov 14 03 14:14	15098.06s	Liquid	S
044	Nov 14 03 14:19	15098.07s	Liquid	S
045	Nov 14 03 14:24	15098.07 dp	Liquid	DP
046	Nov 14 03 14:30	15098.07 sp-2.0	Liquid	MS
047	Nov 14 03 14:35	Rinse	Liquid	
048	Nov 14 03 14:41	CCV3-2.0-H092603	Liquid	CCV
049	Nov 14 03 14:46	Rinse	Liquid	
050	Nov 14 03 14:51	CCB3	Liquid	CCB
051	Nov 14 03 14:57	LCS2-2.0	Liquid	LCS
052	Nov 14 03 15:02	Rinse	Liquid	
053	Nov 14 03 15:07	LRB2	Liquid	LRB

Form 0: Sequence Log

Data Set ID: HG-03-1114A
Analysis Date: Nov 14 03

Instrument ID: HG
Analyst: BRP

Filename	Run Time	Sample ID	Matrix	QC Type
054	Nov 14 03 15:13	15098.08s	Liquid	S
055	Nov 14 03 15:18	15102.01s	Liquid	S
056	Nov 14 03 15:24	15103.01s	Liquid	S
057	Nov 14 03 15:29	15104.01s	Liquid	S
058	Nov 14 03 15:34	15107.01s	Soil	S
059	Nov 14 03 15:40	15108.01s	Liquid	S
060	Nov 14 03 15:45	15108.02s	Liquid	S
061	Nov 14 03 15:50	15109.01s	Liquid	S
062	Nov 14 03 15:56	15109.02s	Liquid	S
063	Nov 14 03 16:01	15109.03s	Liquid	S
064	Nov 14 03 16:07	15109.03 dp	Liquid	DP
065	Nov 14 03 16:12	15109.03 sp-2.0	Liquid	MS
066	Nov 14 03 16:17	Rinse	Liquid	
067	Nov 14 03 16:23	CCV4-2.0-H092603	Liquid	CCV
068	Nov 14 03 16:28	Rinse	Liquid	
069	Nov 14 03 16:33	CCB4		CCB
070	Nov 14 03 16:39	15163.01s	Soil	
071	Nov 14 03 16:44	15164.01s	Soil	
072	Nov 14 03 16:50	15164.02s	Soil	
073	Nov 14 03 16:55	15164.03s	Soil	
074	Nov 14 03 17:00	15105.01s	Soil	
075	Nov 14 03 17:06	15105.02s		
076	Nov 14 03 17:11	15105.03s	Soil	
077	Nov 14 03 17:16	15105.03 dp	Soil	
078	Nov 14 03 17:22	15105.03 sp-0.002	Soil	
079	Nov 14 03 17:27	Rinse	Liquid	
080	Nov 14 03 17:33	CCV5-2.0-H092603	Liquid	
081	Nov 14 03 17:38	Rinse	Liquid	
082	Nov 14 03 17:43	CCB5		

Form 2A: Initial and Continuing Calibration Verification

Data Set ID: HG-03-1114A
Analysis Date: Nov 14 03

Instrument ID: HG
Analyst: BRP

Sample Name	QC Type	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
010 ICV5-5.0-S092603	ICV	1.00	Hg	5.5	5.0	110	90/110	ug/L	Liquid
014 CCV1-2.0-H092603	CCV	1.00	Hg	2.1	2.0	105	80/120	ug/L	Liquid
032 CCV2-2.0-H092603	CCV	1.00	Hg	2.1	2.0	105	80/120	ug/L	Liquid
048 CCV3-2.0-H092603	CCV	1.00	Hg	2.2	2.0	110	80/120	ug/L	Liquid
067 CCV4-2.0-H092603	CCV	1.00	Hg	2.2	2.0	110	80/120	ug/L	Liquid

Form 2B: Performance Sample Evaluation

ERA Lot No.: P885

Data Set ID: HG-03-1114A

Instrument ID: HG

Analysis Date: Nov 14 03

Analyst: BRP

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	Lower Accept	Upper Accept	Units	Matrix
009 ERA-P0885-092603	1.00	Hg	5.2	4.32	120	3.24	5.40	ug/L	Liquid

Form 3: Blanks

Data Set ID: HG-03-1114A
Analysis Date: Nov 14 03

Instrument ID: HG
Analyst: BRP

Sample Name	QC Type	Dilute	Element	Sample Conc	Raw Conc	Units	Matrix
008 ICB	ICB	1.00	Hg	<0.10	0.0163	ug/L	Liquid
015 CCB1	CCB	1.00	Hg	<0.10	0.0659	ug/L	Liquid
018 LRB1	LRB	1.00	Hg	<0.10	0.0114	ug/L	Liquid
034 CCB2	CCB	1.00	Hg	<0.10	0.0022	ug/L	Liquid
050 CCB3	CCB	1.00	Hg	<0.10	-0.0006	ug/L	Liquid
053 LRB2	LRB	1.00	Hg	<0.10	0.0107	ug/L	Liquid
069 CCB4	CCB	1.00	Hg			No Peak	

Form 5A: Matrix Spike Sample Recovery

Data Set ID: HG-03-1114A
Instrument ID: HG
Analysis Date: Nov 14 03
Analyst: BRP

Spike Name	Sample Name	Dilute	Element	Spike Conc	Sample Conc	Spike Amount	%Rec	LCL/UCL	Units	Matrix
030 14816.01 sp-2.0	028 14816.01s	1.00	Hg	2.6	<0.2	2.00	130	70/130	ug/L	Liquid
046 15098.07 sp-2.0	044 15098.07s	1.00	Hg	2.4	<0.2	2.00	120	70/130	ug/L	Liquid
065 15109.03 sp-2.0	063 15109.03s	1.00	Hg	2.5	<0.2	2.00	125	70/130	ug/L	Liquid

Form 6: Duplicates

Data Set ID: HG-03-1114A
Instrument ID: HG
Analysis Date: Nov 14 03
Analyst: BRP

Duplicate Name	Sample Name	Dilute	Element	Dup Conc	Samp Conc	%RPD	LCL/UCL	Units	Matrix
029 14816.01 dp	028 14816.01s	1.00	Hg	<0.2	<0.2	NC	0/20	ug/L	Liquid
045 15098.07 dp	044 15098.07s	1.00	Hg	<0.2	<0.2	NC	0/20	ug/L	Liquid
064 15109.03 dp	063 15109.03s	1.00	Hg	<0.2	<0.2	NC	0/20	ug/L	Liquid

Form 7: Laboratory Control Sample

Data Set ID: HG-03-1114A
Instrument ID: HG
Analysis Date: Nov 14 03
Analyst: BRP

Sample Name	Dilute	Element	Sample Conc	Actual Conc	%Rec	LCL/UCL	Units	Matrix
016 LCS1-2.0	1.00	Hg	2.1	2.0	105	85/115	ug/L	Liquid
051 LCS2-2.0	1.00	Hg	2.2	2.0	110	85/115	ug/L	Liquid

Form 13: Analysis Run Log

Data Set ID: HG-03-1114A
Analysis Date: Nov 14 03

Instrument ID: HG
Analyst: BRP

Filename	Run Time	Matrix	Analytes
001 0.00	Nov 14 03 10:28		Hg
002 0.50-H092603	Nov 14 03 10:33		Hg
003 1.00-H092603	Nov 14 03 10:39		Hg
004 2.00-H092603	Nov 14 03 10:44		Hg
005 4.00-H092603	Nov 14 03 10:49		Hg
006 10.0-H092603	Nov 14 03 10:55		Hg
007 Rinse	Nov 14 03 11:00	Liquid	Hg
008 ICB	Nov 14 03 11:06	Liquid	Hg
009 ERA-P0885-092603	Nov 14 03 11:11	Liquid	Hg
010 ICV5-5.0-S092603	Nov 14 03 11:16	Liquid	Hg
011 100.0-H092603	Nov 14 03 11:22	Liquid	Hg
012 Rinse	Nov 14 03 11:27	Liquid	Hg
013 Rinse	Nov 14 03 11:32	Liquid	Hg
014 CCV1-2.0-H092603	Nov 14 03 11:38	Liquid	Hg
015 CCB1	Nov 14 03 11:43	Liquid	Hg
016 LCS1-2.0	Nov 14 03 11:49	Liquid	Hg
017 Rinse	Nov 14 03 11:54	Liquid	Hg
018 LRB1	Nov 14 03 11:59	Liquid	Hg
019 15093.01s	Nov 14 03 12:05	Liquid	Hg
020 15093.02s	Nov 14 03 12:10	Liquid	Hg
021 14975.02s	Nov 14 03 12:15	Liquid	Hg
022 15000.02s	Nov 14 03 12:21	Liquid	Hg
023 15000.03s	Nov 14 03 12:26	Liquid	Hg
024 15001.01s	Nov 14 03 12:32	Liquid	Hg
025 15003.01s	Nov 14 03 12:37	Liquid	Hg
026 15003.02s	Nov 14 03 12:42	Liquid	Hg
027 15003.03s	Nov 14 03 12:48	Liquid	Hg
028 14816.01s	Nov 14 03 12:53	Liquid	Hg
029 14816.01 dp	Nov 14 03 12:58	Liquid	Hg
030 14816.01 sp-2.0	Nov 14 03 13:04	Liquid	Hg
031 Rinse	Nov 14 03 13:09	Liquid	Hg
032 CCV2-2.0-H092603	Nov 14 03 13:15	Liquid	Hg
033 Rinse	Nov 14 03 13:20	Liquid	Hg
034 CCB2	Nov 14 03 13:25	Liquid	Hg
035 15094.01s	Nov 14 03 13:31	Liquid	Hg
036 15096.01s	Nov 14 03 13:36	Liquid	Hg
037 15096.02s	Nov 14 03 13:41	Liquid	Hg
038 15098.01s	Nov 14 03 13:47	Liquid	Hg
039 15098.02s	Nov 14 03 13:52	Liquid	Hg
040 15098.03s	Nov 14 03 13:58	Liquid	Hg
041 15098.04s	Nov 14 03 14:03	Liquid	Hg
042 15098.05s	Nov 14 03 14:08	Liquid	Hg
043 15098.06s	Nov 14 03 14:14	Liquid	Hg
044 15098.07s	Nov 14 03 14:19	Liquid	Hg
045 15098.07 dp	Nov 14 03 14:24	Liquid	Hg
046 15098.07 sp-2.0	Nov 14 03 14:30	Liquid	Hg
047 Rinse	Nov 14 03 14:35	Liquid	Hg
048 CCV3-2.0-H092603	Nov 14 03 14:41	Liquid	Hg
049 Rinse	Nov 14 03 14:46	Liquid	Hg
050 CCB3	Nov 14 03 14:51	Liquid	Hg
051 LCS2-2.0	Nov 14 03 14:57	Liquid	Hg
052 Rinse	Nov 14 03 15:02	Liquid	Hg
053 LRB2	Nov 14 03 15:07	Liquid	Hg

Form 13: Analysis Run Log

Data Set ID: HG-03-1114A
Analysis Date: Nov 14 03

Instrument ID: HG
Analyst: BRP

Filename	*Run Time*	*Matrix*	*Analytes*
054 15098.08s	Nov 14 03 15:13	Liquid	Hg
055 15102.01s	Nov 14 03 15:18	Liquid	Hg
056 15103.01s	Nov 14 03 15:24	Liquid	Hg
057 15104.01s	Nov 14 03 15:29	Liquid	Hg
058 15107.01s	Nov 14 03 15:34	Soil	Hg
059 15108.01s	Nov 14 03 15:40	Liquid	Hg
060 15108.02s	Nov 14 03 15:45	Liquid	Hg
061 15109.01s	Nov 14 03 15:50	Liquid	Hg
062 15109.02s	Nov 14 03 15:56	Liquid	Hg
063 15109.03s	Nov 14 03 16:01	Liquid	Hg
064 15109.03 dp	Nov 14 03 16:07	Liquid	Hg
065 15109.03 sp-2.0	Nov 14 03 16:12	Liquid	Hg
066 Rinse	Nov 14 03 16:17	Liquid	Hg
067 CCV4-2.0-H092603	Nov 14 03 16:23	Liquid	Hg
068 Rinse	Nov 14 03 16:28	Liquid	Hg
069 CCB4	Nov 14 03 16:33		Hg
070 15163.01s	Nov 14 03 16:39	Soil	Hg
071 15164.01s	Nov 14 03 16:44	Soil	Hg
072 15164.02s	Nov 14 03 16:50	Soil	Hg
073 15164.03s	Nov 14 03 16:55	Soil	Hg
074 15105.01s	Nov 14 03 17:00	Soil	Hg
075 15105.02s	Nov 14 03 17:06		Hg
076 15105.03s	Nov 14 03 17:11	Soil	Hg
077 15105.03 dp	Nov 14 03 17:16	Soil	Hg
078 15105.03 sp-0.002	Nov 14 03 17:22	Soil	Hg
079 Rinse	Nov 14 03 17:27	Liquid	Hg
080 CCV5-2.0-H092603	Nov 14 03 17:33	Liquid	Hg
081 Rinse	Nov 14 03 17:38	Liquid	Hg
082 CCB5	Nov 14 03 17:43		Hg

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes

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Form 7b: Calibration Check Compounds
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Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb19a.d	11/19/03 17:07	spcc/ccc [none]	WW	IP		
spcc19a.d		spcc/ccc [none]	WW	CV		
lcs-w19a.d	11/19/03 17:40	blankms vf031119w1	WW	MS		
1510905m.d	11/19/03 18:13	5ml vf031119w1	WW	MS		
w-19a.d	11/19/03 18:45	wash [none]	WW			
blk-w19a.d	11/19/03 19:18	blank vf031119w1	WW	Bl		
1510905.d	11/19/03 19:51	5ml vf031119w1	WW			
1510905d.d	11/19/03 20:24	5ml vf031119w1	WW	Dp		
1510902.d	11/19/03 20:57	5ml vf031119w1	WW			
1510906.d	11/19/03 21:30	5ml vf031119w1	WW			
1510907.d	11/19/03 22:03	5ml vf031119w1	WW			
1510908.d	11/19/03 22:36	5ml vf031119w1	WW			
1510909.d	11/19/03 23:09	5ml vf031119w1	WW			
1510910.d	11/19/03 23:43	5ml vf031119w1	WW			
1510911.d	11/20/03 00:16	5ml vf031119w1	WW			
1510912.d	11/20/03 00:50	5ml vf031119w1	WW			
1510913.d	11/20/03 01:22	5ml vf031119w1	WW			
1510901.d	11/20/03 01:55	1ml vf031119w1	WW			
1510903.d	11/20/03 02:28	250ul vf031119w1	WW		2	
1510904.d	11/20/03 03:01	250ul vf031119w1	WW			

Matrix (Mtx) Summary

Water Samples:	13	Soil Samples:	0
Water Duplicates:	1	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 1
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Form 7b): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath
Level: N/A

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc19a.d	4-Bromofluorobenzene	57.4/ 50.0	n/a	78.4/119.6	WW
	1,2-Dichloroethane-D4	51.7/ 50.0	n/a	66.4/124.8	
	Toluene-D8	51.6/ 50.0	n/a	82.5/118.4	
				Total Outliers:	n/a
lcs-w19a.d	4-Bromofluorobenzene	55.0/ 50.0	109.9	78.4/119.6	WW
	1,2-Dichloroethane-D4	52.7/ 50.0	105.3	66.4/124.8	
	Toluene-D8	52.5/ 50.0	105.1	82.5/118.4	
				Total Outliers:	0
1510905m.d	4-Bromofluorobenzene	56.5/ 50.0	113.0	78.4/119.6	WW
	1,2-Dichloroethane-D4	53.3/ 50.0	106.6	66.4/124.8	
	Toluene-D8	51.8/ 50.0	103.6	82.5/118.4	
				Total Outliers:	0
w-19a.d	4-Bromofluorobenzene	54.3/ 50.0	n/a	78.4/119.6	WW
	1,2-Dichloroethane-D4	55.6/ 50.0	n/a	66.4/124.8	
	Toluene-D8	50.7/ 50.0	n/a	82.5/118.4	
				Total Outliers:	n/a
blk-w19a.d	4-Bromofluorobenzene	54.6/ 50.0	109.1	78.4/119.6	WW
	1,2-Dichloroethane-D4	54.4/ 50.0	108.9	66.4/124.8	
	Toluene-D8	52.5/ 50.0	105.0	82.5/118.4	
				Total Outliers:	0
1510905.d	4-Bromofluorobenzene	52.4/ 50.0	104.7	78.4/119.6	WW
	1,2-Dichloroethane-D4	56.7/ 50.0	113.3	66.4/124.8	
	Toluene-D8	51.7/ 50.0	103.4	82.5/118.4	
				Total Outliers:	0
1510905d.d	4-Bromofluorobenzene	51.0/ 50.0	102.0	78.4/119.6	WW
	1,2-Dichloroethane-D4	57.3/ 50.0	114.6	66.4/124.8	
	Toluene-D8	52.3/ 50.0	104.7	82.5/118.4	
				Total Outliers:	0
1510902.d	4-Bromofluorobenzene	52.9/ 50.0	105.7	78.4/119.6	WW
	1,2-Dichloroethane-D4	57.5/ 50.0	115.0	66.4/124.8	
	Toluene-D8	52.0/ 50.0	104.1	82.5/118.4	
				Total Outliers:	0
1510906.d	4-Bromofluorobenzene	54.7/ 50.0	109.3	78.4/119.6	WW
	1,2-Dichloroethane-D4	58.2/ 50.0	116.4	66.4/124.8	
	Toluene-D8	52.6/ 50.0	105.2	82.5/118.4	
				Total Outliers:	0
1510907.d	4-Bromofluorobenzene	53.0/ 50.0	106.0	78.4/119.6	WW
	1,2-Dichloroethane-D4	56.2/ 50.0	112.4	66.4/124.8	
	Toluene-D8	50.8/ 50.0	101.5	82.5/118.4	
				Total Outliers:	0
1510908.d	4-Bromofluorobenzene	50.1/ 50.0	100.2	78.4/119.6	WW
	1,2-Dichloroethane-D4	61.0/ 50.0	122.0	66.4/124.8	
	Toluene-D8	51.9/ 50.0	103.8	82.5/118.4	
				Total Outliers:	0
1510909.d	4-Bromofluorobenzene	50.6/ 50.0	101.1	78.4/119.6	WW
	1,2-Dichloroethane-D4	59.4/ 50.0	118.8	66.4/124.8	
	Toluene-D8	51.5/ 50.0	103.0	82.5/118.4	
				Total Outliers:	0

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath
Level: N/A

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
1510910.d	4-Bromofluorobenzene	49.8/ 50.0	99.6	78.4/119.6	WW
	1,2-Dichloroethane-D4	61.4/ 50.0	122.8	66.4/124.8	
	Toluene-D8	50.8/ 50.0	101.6	82.5/118.4	
				Total Outliers:	0
1510911.d	4-Bromofluorobenzene	49.2/ 50.0	98.4	78.4/119.6	WW
	1,2-Dichloroethane-D4	60.9/ 50.0	121.8	66.4/124.8	
	Toluene-D8	51.9/ 50.0	103.7	82.5/118.4	
				Total Outliers:	0
1510912.d	4-Bromofluorobenzene	49.2/ 50.0	98.3	78.4/119.6	WW
	1,2-Dichloroethane-D4	59.2/ 50.0	118.4	66.4/124.8	
	Toluene-D8	52.6/ 50.0	105.1	82.5/118.4	
				Total Outliers:	0
1510913.d	4-Bromofluorobenzene	51.2/ 50.0	102.4	78.4/119.6	WW
	1,2-Dichloroethane-D4	59.5/ 50.0	119.0	66.4/124.8	
	Toluene-D8	50.7/ 50.0	101.5	82.5/118.4	
				Total Outliers:	0
1510901.d	4-Bromofluorobenzene	48.8/ 50.0	97.6	78.4/119.6	WW
	1,2-Dichloroethane-D4	61.7/ 50.0	123.4	66.4/124.8	
	Toluene-D8	52.1/ 50.0	104.1	82.5/118.4	
				Total Outliers:	0
1510903.d	4-Bromofluorobenzene	49.1/ 50.0	98.1	78.4/119.6	WW
	1,2-Dichloroethane-D4	62.7/ 50.0	125.4 *	66.4/124.8	
	Toluene-D8	50.3/ 50.0	100.7	82.5/118.4	
				Total Outliers:	1
1510904.d	4-Bromofluorobenzene	50.2/ 50.0	100.3	78.4/119.6	WW
	1,2-Dichloroethane-D4	61.2/ 50.0	122.5	66.4/124.8	
	Toluene-D8	52.1/ 50.0	104.3	82.5/118.4	
				Total Outliers:	0

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

File Name	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
1510905d.d	1510905.d	acetone (*)	3.24/ 2.56	23.4	WW
		[end of compound list]			
				Total Outliers:	0

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

File Name	Sample Name	Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
lcs-w19a.d	blk-w19a.d	Benzene	23.04/	0.00	25.00	92.2	73.7/127.0	WW
		Chlorobenzene	25.07/	0.00	25.00	100.3	75.0/130.0	
		1,1-Dichloroethene	19.25/	0.00	25.00	77.0	59.9/145.0	
		Trichloroethene	23.25/	0.00	25.00	93.0	71.0/121.2	
		Toluene	24.67/	0.00	25.00	98.7	71.4/127.6	
							Total Outliers:	0
1510905m.d	1510905.d	Benzene	25.65/	0.00	25.00	102.6	73.7/127.0	WW
		Chlorobenzene	26.84/	0.00	25.00	107.4	75.0/130.0	
		1,1-Dichloroethene	21.20/	0.00	25.00	84.8	59.9/145.0	
		Trichloroethene	25.25/	0.00	25.00	101.0	71.0/121.2	
		Toluene	25.67/	0.00	25.00	102.7	71.4/127.6	
							Total Outliers:	0

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath
Level: N/A

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Run Time	Target Compound	Conc.	Matrix
blk-w19a.d	11/19/03 19:18	[end of compound list]	0.00	WW

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb19a.d	11/19/03 17:07	50	95	15.0	40.0	21.3	72736	PASS
		75	95	30.0	60.0	51.9	177152	PASS
		95	95	100.0	100.0	100.0	341376	PASS
		96	95	5.0	9.0	7.9	27064	PASS
		173	174	0.0	2.0	0.0	0	PASS
		174	95	50.0	200.0	109.1	372288	PASS
		175	174	5.0	9.0	8.5	31536	PASS
		176	174	95.0	101.0	98.7	367296	PASS
		177	176	5.0	9.0	8.1	29616	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fr031028.m	PENTAFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.410	8.22	0.440	0.435	0.432	0.408	0.396	0.351				
	Diethyl ether (*)	QO	0.152	13.5	0.128	0.178	0.165	0.158	0.157	0.127	1.00	0.00	0.180	-0.01
	Acetone (*)	A	0.110	24.3		0.143	0.100	0.135	0.090	0.084				
	Methyl iodide (iodomethane) (*	QO	0.559	9.40	0.489	0.572	0.590	0.609	0.597	0.497	1.00	0.00	0.672	-0.04
	Carbon disulfide (*)	LO	0.949	14.2	0.690	0.986	1.029	1.043	1.027	0.916	0.99	0.00	0.946	0.00
	tert-Methyl butyl ether (MTBE)	QO	0.770	13.3	0.723	0.942	0.810	0.768	0.741	0.635	1.00	0.00	0.840	-0.05
	Acrylonitrile (*)	LO	0.071	11.5		0.085	0.066	0.068	0.070	0.065	1.00	0.00	0.066	0.00
	2-Butanone (MEK) (*)	L	0.144	27.3		0.210	0.136	0.147	0.119	0.110	0.99	0.02	0.108	0.00
	Dichlorodifluoromethane	QO	0.364	17.4	0.347	0.457	0.403	0.366	0.341	0.269	1.00	0.00	0.412	-0.04
	Chloromethane (SPCC)	QO	0.365	9.05	0.385	0.400	0.378	0.362	0.358	0.305	1.00	0.00	0.400	-0.02
	Vinyl Chloride (CCC)	QO	0.338	11.3	0.344	0.374	0.368	0.348	0.328	0.268	1.00	0.00	0.385	-0.03
	Bromomethane	QO	0.091	31.5	0.138	0.102	0.097	0.077	0.074	0.056	1.00	0.00	0.091	-0.01
	Chloroethane	QO	0.242	11.8	0.253	0.271	0.256	0.250	0.234	0.189	1.00	0.00	0.277	-0.02
	Trichlorofluoromethane	QO	0.551	11.7	0.555	0.615	0.603	0.567	0.533	0.435	1.00	0.00	0.627	-0.05
	1,1-Dichloroethene (CCC/MS)	QO	0.540	9.28	0.505	0.599	0.579	0.556	0.540	0.462	1.00	0.00	0.608	-0.04
	Methylene Chloride	QO	0.345	8.51	0.344	0.389	0.353	0.352	0.333	0.299	1.00	0.00	0.370	-0.02
	trans-1,2-Dichloroethene	QO	0.536	9.58	0.494	0.602	0.586	0.528	0.535	0.469	1.00	0.00	0.583	-0.03
	1,1-Dichloroethane (SPCC)	A	0.620	6.78	0.604	0.667	0.662	0.625	0.610	0.553				
	cis-1,2-Dichloroethene	QO	0.372	14.0	0.330	0.455	0.403	0.383	0.335	0.323	1.00	0.00	0.378	-0.01
	Chloroform (CCC)	QO	0.704	17.5	0.772	0.897	0.732	0.667	0.589	0.567	1.00	0.00	0.665	-0.03
	Bromochloromethane	LO	0.268	13.6	0.231	0.334	0.278	0.267	0.259	0.241	1.00	0.00	0.247	0.00
	1,1,1-Trichloroethane	QO	0.611	13.8	0.538	0.728	0.683	0.618	0.589	0.508	1.00	0.00	0.672	-0.04
	1,1-Dichloropropene	A	0.499	11.5	0.498	0.569	0.547	0.496	0.479	0.405				
	1,4-DIFLUOROBENZENE (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	TOLUENE-D8 (S)	A	1.062	1.94	1.077	1.082	1.045	1.077	1.058	1.031				
	4-Methyl-2-pentanone (MIBK) (*	L	0.078	28.4		0.118	0.068	0.070	0.071	0.065	1.00	0.01	0.065	0.00
	2-Hexanone (*)	L	0.073	27.3		0.107	0.062	0.073	0.064	0.058	0.99	0.01	0.058	0.00
	Carbon Tetrachloride	QO	0.488	12.4	0.506	0.554	0.515	0.507	0.464	0.379	1.00	0.00	0.553	-0.04
	Benzene (MS)	QO	1.084	9.79	1.010	1.264	1.139	1.072	1.054	0.964	1.00	0.00	1.138	-0.04
	1,2-Dichloroethane	A	0.447	15.1	0.498		0.521	0.456	0.402	0.357				
	Trichloroethene (MS)	QO	0.362	11.9	0.335	0.437	0.379	0.358	0.348	0.313	1.00	0.00	0.382	-0.02
	1,2-Dichloropropane (CCC)	QO	0.290	11.8	0.258	0.356	0.286	0.284	0.284	0.271	1.00	0.00	0.295	-0.01
	Bromodichloromethane	LO	0.393	13.5	0.307		0.433	0.427	0.421	0.377	0.99	0.00	0.389	0.00
	Dibromomethane	A	0.281	7.70	0.256		0.308	0.290	0.290	0.262				
	cis-1,3-Dichloropropene	LO	0.429	16.1	0.308		0.459	0.471	0.470	0.437	1.00	0.00	0.446	0.00
	Toluene (CCC/MS)	QO	1.194	16.0		1.512	1.177	1.165	1.115	0.999	1.00	0.00	1.237	-0.06
	trans-1,3-Dichloropropene	A	0.383	15.8	0.280		0.416	0.423	0.420	0.377				
	1,1,2-Trichloroethane	A	0.192	4.97	0.189		0.197	0.199	0.197	0.176				
	Tetrachloroethene	QO	0.543	13.8	0.563	0.666	0.532	0.548	0.512	0.436	1.00	0.00	0.590	-0.04
	CHLOROBENZENE-D5 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.855	3.92	0.833	0.840	0.825	0.839	0.880	0.911				
	Dibromochloromethane	QO	0.753	24.5	0.483	1.062	0.721	0.744	0.769	0.741	1.00	0.00	0.777	-0.01
	1,2-Dibromoethane	LO	0.602	23.9	0.412	0.858	0.593	0.586	0.595	0.568	1.00	0.00	0.575	0.00
	Chlorobenzene (SPCC/MS)	QO	1.779	15.8	1.745	2.333	1.765	1.641	1.629	1.562	1.00	0.00	1.708	-0.04
	1,1,1,2-Tetrachloroethane	LO	0.744	20.5	0.538	1.011	0.743	0.730	0.742	0.699	1.00	0.00	0.710	0.00
	Ethylbenzene (CCC)	QO	2.647	15.1	2.480	3.420	2.700	2.498	2.484	2.297	1.00	0.00	2.659	-0.09
	p,m-Xylene	QO	0.810	12.5	0.794	1.005	0.805	0.769	0.776	0.711	1.00	0.00	0.825	-0.03
	o-Xylene	QO	1.824	14.8	1.820	2.325	1.858	1.710	1.691	1.538	1.00	0.00	1.835	-0.07
	Styrene	QO	1.268	15.3	1.101	1.650	1.218	1.226	1.241	1.169	1.00	0.00	1.290	-0.03
	Isopropylbenzene	QO	2.248	12.9	2.064	2.820	2.236	2.188	2.148	2.032	1.00	0.00	2.272	-0.06
	Bromoform (SPCC)	QO	0.579	24.9	0.351	0.799	0.535	0.583	0.600	0.606	1.00	0.00	0.585	0.01
	1,1,2,2-Tetrachloroethane (SPC	QO	0.545	25.6	0.453	0.826	0.509	0.497	0.504	0.479	1.00	0.00	0.525	-0.01
	1,2,3-Trichloropropane	QO	0.203	25.7	0.196	0.306	0.195	0.178	0.177	0.164	1.00	0.00	0.191	-0.01
	n-Propylbenzene	QO	2.199	11.2	2.069	2.686	2.170	2.123	2.142	2.006	1.00	0.00	2.240	-0.06
	Bromobenzene	QO	0.773	16.8	0.680	1.032	0.749	0.745	0.724	0.706	1.00	0.00	0.757	-0.01
	1,3,5-Trimethylbenzene	QO	0.839	17.7	0.743	1.091	0.913	0.839	0.780	0.669	1.00	0.00	0.907	-0.06
	tert-Butylbenzene	QO	1.101	15.5	0.958	1.398	1.173	1.094	1.052	0.930	1.00	0.00	1.177	-0.06
	1,2,4-Trimethylbenzene	QO	0.804	16.5	0.761	1.036	0.859	0.772	0.746	0.647	1.00	0.00	0.845	-0.05
	1,4-DICHLOROBENZENE-D4 (I)	I			1.000	10.00	20.00	60.00	100.0	200.0				
	sec-Butylbenzene	A	2.570	9.36	2.246	2.980	2.631	2.567	2.531	2.465				
	p-Isopropyltoluene	A	2.276	11.2	2.134	2.704	2.431	2.239	2.156	1.992				

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fr031028.m	1,3-Dichlorobenzene	QO	1.525	14.4	1.548	1.949	1.486	1.409	1.406	1.351	1.00	0.00	1.464	-0.03
	1,4-Dichlorobenzene	QO	1.626	20.5	2.084	2.016	1.506	1.413	1.383	1.351	1.00	0.00	1.445	-0.02
	1,2-Dichlorobenzene	QO	1.393	17.0	1.449	1.835	1.376	1.261	1.253	1.181	1.00	0.00	1.330	-0.04
	n-Butylbenzene	A	2.072	13.4	1.913	2.527	2.253	2.046	1.937	1.756				
	1,2-Dibromo-3-Chloropropane	QO	0.163	16.3		0.206	0.137	0.148	0.156	0.167	1.00	0.00	0.144	0.01
	1,2,4-Trichlorobenzene	LO	1.150	11.8	1.122	1.412	1.166	1.101	1.066	1.035	1.00	0.00	1.047	0.00
	Hexachlorobutadiene	QO	0.707	4.91	0.667	0.750	0.691	0.746	0.707	0.679	1.00	0.00	0.748	-0.02
	Naphthalene	LO	1.337	19.8	0.951	1.753	1.434	1.366	1.308	1.212	1.00	0.00	1.243	0.00
	2-Methylnaphthalene	A	0.094	27.0		0.121	0.102	0.107	0.088	0.054				

Calibration Date: 10/28/03

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)

Calibration (1): fr031028.m (Mean %RSD: 14.99)

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath
Initial Calibration Date: (see Form 6)

Analytical Batch: 031119ar.1
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc19a.d	11/19/03 17:07	1,1,2,2-Tetrachloroethane	0.579	0.30
		Bromoform	0.656	0.10
		Chlorobenzene	1.806	0.30
		Chloromethane	0.338	0.10
		1,1-Dichloroethane	0.581	0.10

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath
Initial Calibration Date: (see Form 6)

Analytical Batch: 031119ar.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spcc19a.d	11/19/03 17:07	Chloroform	25.8/ 25.0	3.4/ 20.0
		1,1-Dichloroethene	21.6/ 25.0	13.6/ 20.0
		1,2-Dichloropropane	24.0/ 25.0	4.1/ 20.0
		Ethylbenzene	26.2/ 25.0	4.9/ 20.0
		Toluene	25.0/ 25.0	0.1/ 20.0
		Vinyl Chloride	21.6/ 25.0	13.5/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
spcc19a.d	11/19/03 17:07	Pentafluorobenzene	2233770/ 7.70	1116885- 4467540	7.20- 8.20
		1,4-Difluorobenzene	2401352/ 8.71	1200676- 4802704	8.21- 9.21
		Chlorobenzene-D5	1169006/13.38	584503- 2338012	12.88-13.88
		1,4-Dichlorobenzene-D4	1036476/17.85	518238- 2072952	17.35-18.35
lcs-w19a.d	11/19/03 17:40	Pentafluorobenzene	2189421/ 7.70	Ratio: 0.980	Diff.: 0.00
		1,4-Difluorobenzene	2418718/ 8.71	Ratio: 1.007	Diff.: 0.00
		Chlorobenzene-D5	1165306/13.37	Ratio: 0.997	Diff.: -0.01
		1,4-Dichlorobenzene-D4	974547/17.85	Ratio: 0.940	Diff.: 0.00
1510905m.d	11/19/03 18:13	Pentafluorobenzene	2238020/ 7.69	Ratio: 1.002	Diff.: -0.01
		1,4-Difluorobenzene	2414341/ 8.71	Ratio: 1.005	Diff.: 0.00
		Chlorobenzene-D5	1171243/13.37	Ratio: 1.002	Diff.: -0.01
		1,4-Dichlorobenzene-D4	1001386/17.84	Ratio: 0.966	Diff.: -0.01
w-19a.d	11/19/03 18:45	Pentafluorobenzene	2281019/ 7.70	Ratio: 1.021	Diff.: 0.00
		1,4-Difluorobenzene	2628756/ 8.70	Ratio: 1.095	Diff.: -0.01
		Chlorobenzene-D5	1202165/13.36	Ratio: 1.028	Diff.: -0.02
		1,4-Dichlorobenzene-D4	980314/17.85	Ratio: 0.946	Diff.: 0.00
blk-w19a.d	11/19/03 19:18	Pentafluorobenzene	2194594/ 7.69	Ratio: 0.982	Diff.: -0.01
		1,4-Difluorobenzene	2427355/ 8.70	Ratio: 1.011	Diff.: -0.01
		Chlorobenzene-D5	1196782/13.36	Ratio: 1.024	Diff.: -0.02
		1,4-Dichlorobenzene-D4	1022528/17.84	Ratio: 0.987	Diff.: -0.01
1510905.d	11/19/03 19:51	Pentafluorobenzene	2215460/ 7.69	Ratio: 0.992	Diff.: -0.01
		1,4-Difluorobenzene	2534474/ 8.70	Ratio: 1.055	Diff.: -0.01
		Chlorobenzene-D5	1172995/13.36	Ratio: 1.003	Diff.: -0.02
		1,4-Dichlorobenzene-D4	940637/17.84	Ratio: 0.908	Diff.: -0.01
1510905d.d	11/19/03 20:24	Pentafluorobenzene	2136390/ 7.68	Ratio: 0.956	Diff.: -0.02
		1,4-Difluorobenzene	2445098/ 8.69	Ratio: 1.018	Diff.: -0.02
		Chlorobenzene-D5	1198140/13.36	Ratio: 1.025	Diff.: -0.02
		1,4-Dichlorobenzene-D4	932890/17.83	Ratio: 0.900	Diff.: -0.02
1510902.d	11/19/03 20:57	Pentafluorobenzene	2208534/ 7.68	Ratio: 0.989	Diff.: -0.02
		1,4-Difluorobenzene	2517938/ 8.69	Ratio: 1.049	Diff.: -0.02
		Chlorobenzene-D5	1232926/13.36	Ratio: 1.055	Diff.: -0.02
		1,4-Dichlorobenzene-D4	986505/17.84	Ratio: 0.952	Diff.: -0.01
1510906.d	11/19/03 21:30	Pentafluorobenzene	2137790/ 7.68	Ratio: 0.957	Diff.: -0.02
		1,4-Difluorobenzene	2383190/ 8.69	Ratio: 0.992	Diff.: -0.02
		Chlorobenzene-D5	1165176/13.36	Ratio: 0.997	Diff.: -0.02
		1,4-Dichlorobenzene-D4	953401/17.83	Ratio: 0.920	Diff.: -0.02
1510907.d	11/19/03 22:03	Pentafluorobenzene	2180122/ 7.68	Ratio: 0.976	Diff.: -0.02
		1,4-Difluorobenzene	2417182/ 8.69	Ratio: 1.007	Diff.: -0.02
		Chlorobenzene-D5	1155644/13.36	Ratio: 0.989	Diff.: -0.02
		1,4-Dichlorobenzene-D4	923514/17.83	Ratio: 0.891	Diff.: -0.02
1510908.d	11/19/03 22:36	Pentafluorobenzene	2120936/ 7.68	Ratio: 0.949	Diff.: -0.02
		1,4-Difluorobenzene	2488903/ 8.69	Ratio: 1.036	Diff.: -0.02
		Chlorobenzene-D5	1168768/13.36	Ratio: 1.000	Diff.: -0.02
		1,4-Dichlorobenzene-D4	883893/17.83	Ratio: 0.853	Diff.: -0.02
1510909.d	11/19/03 23:09	Pentafluorobenzene	2094948/ 7.68	Ratio: 0.938	Diff.: -0.02
		1,4-Difluorobenzene	2410562/ 8.69	Ratio: 1.004	Diff.: -0.02
		Chlorobenzene-D5	1125716/13.36	Ratio: 0.963	Diff.: -0.02
		1,4-Dichlorobenzene-D4	847572/17.83	Ratio: 0.818	Diff.: -0.02
1510910.d	11/19/03 23:43	Pentafluorobenzene	2054881/ 7.68	Ratio: 0.920	Diff.: -0.02
		1,4-Difluorobenzene	2436365/ 8.69	Ratio: 1.015	Diff.: -0.02
		Chlorobenzene-D5	1130882/13.35	Ratio: 0.967	Diff.: -0.03
		1,4-Dichlorobenzene-D4	843360/17.83	Ratio: 0.814	Diff.: -0.02
1510911.d	11/20/03 00:16	Pentafluorobenzene	2010432/ 7.68	Ratio: 0.900	Diff.: -0.02
		1,4-Difluorobenzene	2382741/ 8.69	Ratio: 0.992	Diff.: -0.02
		Chlorobenzene-D5	1134335/13.36	Ratio: 0.970	Diff.: -0.02
		1,4-Dichlorobenzene-D4	822041/17.83	Ratio: 0.793	Diff.: -0.02

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.02.Rath

Analytical Batch: 031119ar.1
Heated Purge: Yes

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
1510912.d	11/20/03 00:50	Pentafluorobenzene	2047952/ 7.68	Ratio: 0.917	Diff.: -0.02
		1,4-Difluorobenzene	2382978/ 8.69	Ratio: 0.992	Diff.: -0.02
		Chlorobenzene-D5	1135200/13.35	Ratio: 0.971	Diff.: -0.03
		1,4-Dichlorobenzene-D4	815937/17.83	Ratio: 0.787	Diff.: -0.02
1510913.d	11/20/03 01:22	Pentafluorobenzene	2072524/ 7.68	Ratio: 0.928	Diff.: -0.02
		1,4-Difluorobenzene	2347703/ 8.69	Ratio: 0.978	Diff.: -0.02
		Chlorobenzene-D5	1105706/13.36	Ratio: 0.946	Diff.: -0.02
		1,4-Dichlorobenzene-D4	831887/17.82	Ratio: 0.803	Diff.: -0.03
1510901.d	11/20/03 01:55	Pentafluorobenzene	1933767/ 7.68	Ratio: 0.866	Diff.: -0.02
		1,4-Difluorobenzene	2254126/ 8.69	Ratio: 0.939	Diff.: -0.02
		Chlorobenzene-D5	1057106/13.35	Ratio: 0.904	Diff.: -0.03
		1,4-Dichlorobenzene-D4	755395/17.82	Ratio: 0.729	Diff.: -0.03
1510903.d	11/20/03 02:28	Pentafluorobenzene	2010435/ 7.68	Ratio: 0.900	Diff.: -0.02
		1,4-Difluorobenzene	2377943/ 8.68	Ratio: 0.990	Diff.: -0.03
		Chlorobenzene-D5	1082240/13.35	Ratio: 0.926	Diff.: -0.03
		1,4-Dichlorobenzene-D4	793478/17.82	Ratio: 0.766	Diff.: -0.03
1510904.d	11/20/03 03:01	Pentafluorobenzene	1999653/ 7.68	Ratio: 0.895	Diff.: -0.02
		1,4-Difluorobenzene	2322143/ 8.69	Ratio: 0.967	Diff.: -0.02
		Chlorobenzene-D5	1130037/13.35	Ratio: 0.967	Diff.: -0.03
		1,4-Dichlorobenzene-D4	828802/17.82	Ratio: 0.800	Diff.: -0.03

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031117.1
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d17a.d	11/17/03 02:59	dftpp std [none]	WW	IP		
spcc17a.d	11/17/03 03:41	bna std 30 [none]	WW	CV		
1507202.d	11/17/03 05:05	tcl-w 1000ml/1ml 6:1 sf031114w50	WW			
1507203.d	11/17/03 05:47	tcl-w 1000ml/1ml 6:1 sf031114w50	WW		2	
1507901.d	11/17/03 06:29	tcl-w 1000ml/1ml 1:1 sf031114w50	WW			
1507902.d	11/17/03 07:11	tcl-w 1000ml/1ml 1:1 sf031114w50	WW			
1507903.d	11/17/03 07:53	tcl-w 1000ml/1ml 1:1 sf031114w50	WW			
1507904.d	11/17/03 08:35	tcl-w 1000ml/1ml 1:1 sf031114w50	WW			
1508001.d	11/17/03 09:17	tcl-w 1000ml/1ml 6:1 sf031114w50	WW			
1508101.d	11/17/03 09:59	tcl-w 1000ml/1ml 6:1 sf031114w50	WW			
1510901.d	11/17/03 10:41	bna-w 1000ml/1ml 1:1 sf031110w48	WW			
1510902.d	11/17/03 11:23	bna-w 820ml/1ml 1:1 sf031110w48	WW			
1510903.d	11/17/03 12:04	bna-w 850ml/1ml 1:1 sf031110w48	WW			
1510904.d	11/17/03 12:46	bna-w 1000ml/1ml 1:1 sf031110w48	WW			
1510905.d	11/17/03 13:28	bna-w 960ml/1ml 1:1 sf031110w48	WW			
1510906.d	11/17/03 14:10	bna-w 965ml/1ml 1:1 sf031110w48	WW			
1510907.d	11/17/03 14:52	bna-w 900ml/1ml 1:1 sf031110w48	WW			

Matrix (Mtx) Summary

Water Samples:	15	Soil Samples:	0
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	0
Water Blanks:	0	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Actton (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 1
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Form 7b): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Level: LOW

Analytical Batch: u031117.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc17a.d	2-Fluorophenol	32.0/100.0	n/a	10.0/110.0	WW
	2-Fluorobiphenyl	29.9/100.0	n/a	10.0/116.0	
	Nitrobenzene-D5	31.9/100.0	n/a	10.0/114.0	
	Phenol-d5	32.2/100.0	n/a	10.0/110.0	
	2,4,6-Tribromophenol	30.5/100.0	n/a	10.0/123.0	
	Terphenyl-D14	30.2/100.0	n/a	10.0/141.0	
				Total Outliers: n/a	
1507202.d	2-Fluorophenol	56.6/100.0	56.6	10.0/110.0	WW
	2-Fluorobiphenyl	70.6/100.0	70.6	10.0/116.0	
	Nitrobenzene-D5	72.0/100.0	72.0	10.0/114.0	
	Phenol-d5	44.0/100.0	44.0	10.0/110.0	
	2,4,6-Tribromophenol	84.3/100.0	84.3	10.0/123.0	
	Terphenyl-D14	80.4/100.0	80.4	10.0/141.0	
				Total Outliers: 0	
1507203.d	2-Fluorophenol	9.0/100.0	9.0 *	10.0/110.0	WW
	2-Fluorobiphenyl	12.3/100.0	12.3	10.0/116.0	
	Nitrobenzene-D5	12.0/100.0	12.0	10.0/114.0	
	Phenol-d5	6.5/100.0	6.5 *	10.0/110.0	
	2,4,6-Tribromophenol	14.2/100.0	14.2	10.0/123.0	
	Terphenyl-D14	13.9/100.0	13.9	10.0/141.0	
				Total Outliers: 2	
1507901.d	2-Fluorophenol	42.4/100.0	42.4	10.0/110.0	WW
	2-Fluorobiphenyl	48.6/100.0	48.6	10.0/116.0	
	Nitrobenzene-D5	51.7/100.0	51.7	10.0/114.0	
	Phenol-d5	29.7/100.0	29.7	10.0/110.0	
	2,4,6-Tribromophenol	69.9/100.0	69.9	10.0/123.0	
	Terphenyl-D14	56.9/100.0	56.9	10.0/141.0	
				Total Outliers: 0	
1507902.d	2-Fluorophenol	34.1/100.0	34.1	10.0/110.0	WW
	2-Fluorobiphenyl	42.1/100.0	42.1	10.0/116.0	
	Nitrobenzene-D5	44.1/100.0	44.1	10.0/114.0	
	Phenol-d5	24.5/100.0	24.5	10.0/110.0	
	2,4,6-Tribromophenol	59.7/100.0	59.7	10.0/123.0	
	Terphenyl-D14	49.4/100.0	49.4	10.0/141.0	
				Total Outliers: 0	
1507903.d	2-Fluorophenol	33.3/100.0	33.3	10.0/110.0	WW
	2-Fluorobiphenyl	42.9/100.0	42.9	10.0/116.0	
	Nitrobenzene-D5	45.2/100.0	45.2	10.0/114.0	
	Phenol-d5	33.7/100.0	33.7	10.0/110.0	
	2,4,6-Tribromophenol	62.7/100.0	62.7	10.0/123.0	
	Terphenyl-D14	49.7/100.0	49.7	10.0/141.0	
				Total Outliers: 0	
1507904.d	2-Fluorophenol	31.5/100.0	31.5	10.0/110.0	WW
	2-Fluorobiphenyl	46.5/100.0	46.5	10.0/116.0	
	Nitrobenzene-D5	50.2/100.0	50.2	10.0/114.0	
	Phenol-d5	32.1/100.0	32.1	10.0/110.0	
	2,4,6-Tribromophenol	66.2/100.0	66.2	10.0/123.0	
	Terphenyl-D14	50.9/100.0	50.9	10.0/141.0	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Level: LOW

Analytical Batch: u031117.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
1508001.d	2-Fluorophenol	48.4/100.0	48.4	10.0/110.0	WW
	2-Fluorobiphenyl	63.3/100.0	63.3	10.0/116.0	
	Nitrobenzene-D5	60.9/100.0	60.9	10.0/114.0	
	Phenol-d5	36.6/100.0	36.6	10.0/110.0	
	2,4,6-Tribromophenol	74.9/100.0	74.9	10.0/123.0	
	Terphenyl-D14	72.4/100.0	72.4	10.0/141.0	
				Total Outliers:	0
1508101.d	2-Fluorophenol	51.7/100.0	51.7	10.0/110.0	WW
	2-Fluorobiphenyl	74.2/100.0	74.2	10.0/116.0	
	Nitrobenzene-D5	72.8/100.0	72.8	10.0/114.0	
	Phenol-d5	40.2/100.0	40.2	10.0/110.0	
	2,4,6-Tribromophenol	91.8/100.0	91.8	10.0/123.0	
	Terphenyl-D14	79.5/100.0	79.5	10.0/141.0	
				Total Outliers:	0
1510901.d	2-Fluorophenol	40.4/100.0	40.4	10.0/110.0	WW
	2-Fluorobiphenyl	32.9/100.0	32.9	10.0/116.0	
	Nitrobenzene-D5	36.3/100.0	36.3	10.0/114.0	
	Phenol-d5	29.9/100.0	29.9	10.0/110.0	
	2,4,6-Tribromophenol	45.4/100.0	45.4	10.0/123.0	
	Terphenyl-D14	39.1/100.0	39.1	10.0/141.0	
				Total Outliers:	0
1510902.d	2-Fluorophenol	41.6/100.0	41.6	10.0/110.0	WW
	2-Fluorobiphenyl	36.4/100.0	36.4	10.0/116.0	
	Nitrobenzene-D5	39.5/100.0	39.5	10.0/114.0	
	Phenol-d5	30.4/100.0	30.4	10.0/110.0	
	2,4,6-Tribromophenol	49.6/100.0	49.6	10.0/123.0	
	Terphenyl-D14	43.0/100.0	43.0	10.0/141.0	
				Total Outliers:	0
1510903.d	2-Fluorophenol	41.2/100.0	41.2	10.0/110.0	WW
	2-Fluorobiphenyl	37.1/100.0	37.1	10.0/116.0	
	Nitrobenzene-D5	42.3/100.0	42.3	10.0/114.0	
	Phenol-d5	28.0/100.0	28.0	10.0/110.0	
	2,4,6-Tribromophenol	50.8/100.0	50.8	10.0/123.0	
	Terphenyl-D14	43.7/100.0	43.7	10.0/141.0	
				Total Outliers:	0
1510904.d	2-Fluorophenol	20.5/100.0	20.5	10.0/110.0	WW
	2-Fluorobiphenyl	26.2/100.0	26.2	10.0/116.0	
	Nitrobenzene-D5	28.1/100.0	28.1	10.0/114.0	
	Phenol-d5	16.1/100.0	16.1	10.0/110.0	
	2,4,6-Tribromophenol	34.0/100.0	34.0	10.0/123.0	
	Terphenyl-D14	30.1/100.0	30.1	10.0/141.0	
				Total Outliers:	0
1510905.d	2-Fluorophenol	54.3/100.0	54.3	10.0/110.0	WW
	2-Fluorobiphenyl	51.0/100.0	51.0	10.0/116.0	
	Nitrobenzene-D5	55.7/100.0	55.7	10.0/114.0	
	Phenol-d5	43.0/100.0	43.0	10.0/110.0	
	2,4,6-Tribromophenol	70.5/100.0	70.5	10.0/123.0	
	Terphenyl-D14	50.7/100.0	50.7	10.0/141.0	
				Total Outliers:	0

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Level: LOW

Analytical Batch: u031117.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
1510906.d	2-Fluorophenol	46.7/100.0	46.7	10.0/110.0	WW
	2-Fluorobiphenyl	49.5/100.0	49.5	10.0/116.0	
	Nitrobenzene-D5	54.2/100.0	54.2	10.0/114.0	
	Phenol-d5	33.1/100.0	33.1	10.0/110.0	
	2,4,6-Tribromophenol	68.7/100.0	68.7	10.0/123.0	
	Terphenyl-D14	53.9/100.0	53.9	10.0/141.0	
				Total Outliers:	0
1510907.d	2-Fluorophenol	40.3/100.0	40.3	10.0/110.0	WW
	2-Fluorobiphenyl	50.0/100.0	50.0	10.0/116.0	
	Nitrobenzene-D5	53.8/100.0	53.8	10.0/114.0	
	Phenol-d5	27.9/100.0	27.9	10.0/110.0	
	2,4,6-Tribromophenol	64.6/100.0	64.6	10.0/123.0	
	Terphenyl-D14	49.4/100.0	49.4	10.0/141.0	
				Total Outliers:	0

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031117.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d17a.d	11/17/03 02:59	51	198	30.0	60.0	57.5	147328	PASS
		68	69	0.0	2.0	0.0	0	PASS
		69	198	0.0	100.0	59.4	152192	PASS
		70	69	0.0	2.0	0.0	0	PASS
		127	198	40.0	60.0	52.1	133568	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	256192	PASS
		199	198	5.0	9.0	7.2	18472	PASS
		275	198	10.0	30.0	19.9	51104	PASS
		365	198	1.0	100.0	2.0	5241	PASS
		441	443	0.0	100.0	0.0	0	PASS
		442	198	40.0	100.0	53.5	136960	PASS
		443	442	17.0	23.0	19.8	27104	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031117.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
bn031113.m	1,4-DICHLOROBENZENE-D4	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Pyridine	A	1.989	4.60	1.909	2.119	1.913	2.029	2.055	1.907				
	N-Nitrosodimethylamine	A	1.235	4.92	1.177	1.300	1.180	1.283	1.288	1.183				
	2-Picoline	A	1.893	4.65	1.830	1.973	1.820	1.956	1.986	1.791				
	Methyl methanesulfonate	A	0.853	4.66	0.822	0.892	0.819	0.880	0.895	0.811				
	2-Fluorophenol	A	1.441	4.56	1.385	1.498	1.373	1.490	1.512	1.385				
	Ethyl methanesulfonate	A	1.403	5.04	1.360	1.477	1.344	1.453	1.467	1.316				
	Phenol-d5	A	1.993	5.04	1.924	2.110	1.928	2.057	2.077	1.864				
	Phenol **	A	2.000	5.26	1.948	2.142	1.934	2.044	2.073	1.856				
	Aniline	A	2.302	6.25	2.112	2.436	2.247	2.417	2.430	2.172				
	2-Chlorophenol **	A	1.497	4.32	1.452	1.567	1.454	1.537	1.556	1.413				
	Bis(2-chloroethyl)ether	A	1.677	5.87	1.730	1.779	1.599	1.727	1.709	1.517				
	1,3-Dichlorobenzene	A	1.470	4.72	1.449	1.559	1.407	1.511	1.514	1.380				
	1,4-Dichlorobenzene **	A	1.504	5.22	1.506	1.616	1.449	1.527	1.539	1.388				
	1,2-Dichlorobenzene	A	1.429	4.82	1.414	1.517	1.375	1.457	1.478	1.331				
	Bis(2-chloroisopropyl)ether	A	4.021	6.05	4.057	4.374	3.856	4.050	4.128	3.660				
	Benzyl Alcohol	A	0.914	6.18	0.835	0.931	0.872	0.963	0.985	0.899				
	Acetophenone	A	2.077	5.69	2.004	2.234	2.006	2.142	2.157	1.921				
	o-Cresol	A	1.377	5.28	1.319	1.470	1.317	1.418	1.435	1.301				
	p,m-Cresol	A	1.807	5.35	1.730	1.951	1.756	1.857	1.852	1.693				
	Hexachloroethane	A	0.589	4.58	0.582	0.623	0.562	0.605	0.608	0.556				
	N-Nitrosodi-n-propylamine**	A	1.209	5.03	1.187	1.288	1.161	1.241	1.248	1.126				
	NAPHTHALENE-D8	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Nitrobenzene-d5	A	0.390	4.98	0.380	0.414	0.381	0.405	0.398	0.361				
	Nitrobenzene	A	0.211	4.90	0.203	0.222	0.205	0.220	0.219	0.198				
	N-Nitrosopiperidine	A	0.214	5.64	0.206	0.230	0.208	0.223	0.220	0.198				
	Isophorone	A	0.726	5.81	0.740	0.786	0.712	0.737	0.722	0.657				
	2-Nitrophenol	A	0.228	5.95	0.209	0.240	0.223	0.240	0.238	0.216				
	2,4-Dimethylphenol	A	0.344	6.20	0.344	0.377	0.335	0.353	0.345	0.312				
	Bis(2-chloroethoxy)methane	A	0.502	7.00	0.508	0.556	0.489	0.512	0.497	0.448				
	2,4-Dichlorophenol	A	0.283	5.59	0.271	0.303	0.277	0.294	0.291	0.261				
	1,2,4-Trichlorobenzene **	A	0.285	5.48	0.286	0.306	0.277	0.294	0.288	0.260				
	Naphthalene	A	1.076	8.28	1.142	1.190	1.054	1.079	1.061	0.929				
	4-Chloroaniline	A	0.450	6.51	0.434	0.490	0.449	0.466	0.458	0.404				
	2,6-Dichlorophenol	A	0.274	5.94	0.272	0.298	0.268	0.279	0.276	0.248				
	Hexachlorobutadiene	A	0.138	5.83	0.138	0.150	0.133	0.141	0.139	0.126				
	N-Nitroso-di-n-butylamine	A	0.276	5.56	0.275	0.299	0.265	0.282	0.278	0.254				
	4-Chloro-3-methylphenol **	A	0.329	5.30	0.321	0.348	0.319	0.345	0.337	0.303				
	2-Methylnaphthalene	A	0.581	10.3	0.620	0.672	0.553	0.578	0.564	0.497				
	ACENAPHTHALENE-D10	I			5.000	10.00	20.00	30.00	35.00	50.00				
	1,2,4,5-Tetrachlorobenzene	A	1.210	6.30	1.198	1.323	1.161	1.229	1.249	1.101				
	Hexachlorocyclopentadiene	A	0.214	24.8	0.123	0.186	0.211	0.260	0.260	0.242				
	2,4,6-Trichlorophenol	A	0.841	5.73	0.825	0.904	0.798	0.864	0.875	0.779				
	2,4,5-Trichlorophenol	A	0.882	6.81	0.856	0.979	0.848	0.899	0.906	0.805				
	2-Fluorobiphenyl	A	3.100	8.12	3.232	3.468	3.004	3.099	3.092	2.707				
	2-Chloronaphthalene	A	2.818	6.68	2.859	3.102	2.709	2.840	2.861	2.534				
	1-Chloronaphthalene	A	2.692	8.24	2.825	3.026	2.589	2.671	2.676	2.367				
	2-Nitroaniline	A	1.348	5.73	1.267	1.423	1.297	1.403	1.426	1.271				
	Acenaphthylene	A	4.024	7.86	4.174	4.486	3.893	4.039	4.025	3.527				
	Dimethyl Phthalate	A	3.621	7.49	3.802	4.006	3.462	3.620	3.615	3.219				
	2,6-Dinitrotoluene	A	0.951	4.94	0.906	1.008	0.921	0.979	0.989	0.900				
	3-Nitroaniline	A	1.055	5.98	0.968	1.117	1.025	1.106	1.108	1.008				
	Acenaphthene **	A	2.870	7.40	2.964	3.188	2.776	2.864	2.884	2.544				
	2,4-Dinitrophenol	L	0.386	41.6	0.112	0.281	0.410	0.498	0.517	0.497	0.99	-0.06	0.559	0.00
	Dibenzofuran	A	4.077	7.60	4.221	4.547	3.945	4.069	4.073	3.607				
	4-Nitrophenol **	L	0.612	13.7	0.472	0.580	0.591	0.683	0.703	0.640	0.99	-0.02	0.682	0.00
	2,4-Dinitrotoluene **	A	1.261	5.86	1.207	1.355	1.248	1.295	1.307	1.151				
	2,3,4,6-Tetrachlorophenol	A	0.562	7.52	0.495	0.569	0.543	0.598	0.613	0.551				
	Fluorene	A	3.343	10.2	3.609	3.827	3.264	3.263	3.251	2.844				
	Diethyl phthalate	A	3.706	12.8	4.246	4.268	3.613	3.530	3.544	3.037				
	4-Chlorophenyl phenyl ether	A	1.516	6.48	1.557	1.652	1.471	1.532	1.529	1.356				
	4-Nitroaniline	A	1.060	7.12	0.953	1.108	1.053	1.123	1.133	0.987				

Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031117.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
bn031113.m	2,4,6-Tribromophenol	A	0.407	5.47	0.378	0.425	0.395	0.426	0.428	0.388				
	PHENANTHRENE-D10	I			5.000	10.00	20.00	30.00	35.00	50.00				
	4,6-Dinitro-2-methylphenol	A	0.168	9.62	0.139	0.177	0.170	0.181	0.180	0.160				
	N-Nitrosodiphenylamine	A	1.314	8.96	1.411	1.477	1.278	1.293	1.288	1.138				
	1,2-Diphenylhydrazine	A	0.235	6.94	0.238	0.260	0.227	0.237	0.236	0.210				
	Azobenzene	A	0.235	6.94	0.238	0.260	0.227	0.237	0.236	0.210				
	4-Bromophenyl phenyl ether	A	0.198	5.14	0.195	0.212	0.192	0.204	0.202	0.183				
	1,3,5-Trinitrobenzene	A	0.115	8.92	0.097	0.117	0.114	0.125	0.125	0.114				
	Phenacetin	A	0.508	4.91	0.495	0.536	0.498	0.527	0.524	0.470				
	Hexachlorobenzene	A	0.064	4.88	0.064	0.068	0.063	0.066	0.066	0.059				
	4-Aminobiphenyl	A	0.698	19.6	0.436	0.691	0.720	0.804	0.807	0.731				
	Pentachlorophenol **	L	0.070	20.7		0.049	0.062	0.078	0.079	0.084	0.99	-0.01	0.086	0.00
	Pentachlorophenol - Low Level	L	0.064	33.0	0.030	0.049	0.062	0.078	0.079	0.084	1.00	-0.01	0.091	0.00
	Pronamide	A	0.384	9.01	0.406	0.434	0.375	0.382	0.374	0.331				
	Pentachloronitrobenzene	A	0.085	6.39	0.087	0.092	0.082	0.087	0.085	0.076				
	Phenanthrene	A	1.127	8.80	1.198	1.271	1.080	1.123	1.107	0.983				
	Anthracene	A	1.148	8.73	1.233	1.284	1.107	1.137	1.126	0.999				
	di-N-butyl phthalate	A	1.649	9.87	1.782	1.872	1.610	1.621	1.603	1.403				
	Fluoranthene	A	1.226	8.24	1.292	1.367	1.188	1.229	1.209	1.068				
	Terphenyl-d14	A	0.793	7.77	0.828	0.879	0.772	0.799	0.785	0.694				
	CHRYSENE-D12	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Benzidine	A	0.377	25.9	0.201	0.350	0.368	0.446	0.468	0.428				
	Pyrene **	A	1.407	5.34	1.411	1.523	1.342	1.430	1.427	1.309				
	p-Dimethylaminoazobenzene	A	0.297	6.00	0.270	0.300	0.285	0.315	0.316	0.293				
	Butyl benzyl phthalate	A	0.889	5.33	0.847	0.942	0.845	0.930	0.925	0.847				
	TCDD	A												
	Benzo(a)anthracene	A	1.275	5.40	1.262	1.365	1.218	1.318	1.309	1.179				
	3,3'-Dichlorobenzidine	A	0.408	6.19	0.375	0.427	0.393	0.433	0.431	0.389				
	Chrysene	A	1.137	6.18	1.163	1.237	1.085	1.150	1.154	1.033				
	Bis(2-ethylhexyl)phthalate	A	1.172	5.66	1.149	1.263	1.133	1.210	1.200	1.075				
	Di-n-octyl phthalate	A	2.157	6.07	2.113	2.321	2.070	2.248	2.224	1.966				
	PERYLENE-D12	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Benzo(b)fluoranthene	A	1.514	7.18	1.487	1.689	1.527	1.515	1.517	1.348				
	7,12-Dimethylbenz(a)anthracene	A	0.677	5.22	0.636	0.717	0.652	0.704	0.706	0.649				
	Benzo(k)fluoranthene	A	1.453	6.01	1.504	1.501	1.332	1.514	1.516	1.349				
	Benzo(a)pyrene	A	1.349	5.16	1.355	1.447	1.305	1.374	1.373	1.242				
	3-Methylcholanthrene	A	0.667	5.70	0.677	0.718	0.635	0.684	0.676	0.611				
	Dibenz(a,j)acridine	A	0.930	5.07	0.908	0.988	0.878	0.964	0.962	0.881				
	Indeno(1,2,3-cd)pyrene	A	1.257	7.15	1.313	1.378	1.206	1.265	1.266	1.116				
	Dibenzo(a,h)anthracene	A	1.049	7.71	1.104	1.160	1.002	1.053	1.048	0.926				
	Benzo(ghi)perylene	A	1.048	7.88	1.115	1.166	1.004	1.042	1.031	0.932				

Calibration Date: 11/13/03

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)

Calibration (1): bn031113.M (Mean %RSD: 7.72)

Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Initial Calibration Date: (see Form 6)

Analytical Batch: u031117.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc17a.d	11/17/03 03:41	4-Nitrophenol	0.670	0.05
		2,4-Dinitrophenol	0.449	0.05
		Hexachlorocyclopentadiene	0.251	0.05
		N-Nitrosodi-n-propylamine	1.344	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Initial Calibration Date: (see Form 6)

Analytical Batch: u031117.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
spcc17a.d	11/17/03 03:41	2-Nitrophenol	31.9/ 30.0	6.2/ 20.0
		Acenaphthene	30.1/ 30.0	0.2/ 20.0
		Benzo(a)pyrene	30.8/ 30.0	2.8/ 20.0
		4-Chloro-3-methylphenol	31.6/ 30.0	5.2/ 20.0
		1,4-Dichlorobenzene	31.1/ 30.0	3.8/ 20.0
		2,4-Dichlorophenol	31.3/ 30.0	4.2/ 20.0
		Di-n-octyl phthalate	32.6/ 30.0	8.7/ 20.0
		Fluoranthene	30.3/ 30.0	1.1/ 20.0
		Hexachlorobutadiene	30.7/ 30.0	2.3/ 20.0
		N-Nitrosodiphenylamine	29.5/ 30.0	1.8/ 20.0
		Pentachlorophenol	31.6/ 30.0	5.4/ 20.0
		Pentachlorophenol	26.5/ 30.0	11.6/ 20.0
		Phenol	32.0/ 30.0	6.5/ 20.0
		2,4,6-Trichlorophenol	30.9/ 30.0	3.0/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031117.1
Heated Purge: N/A

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
spcc17a.d	11/17/03 03:41	1,4-Dichlorobenzene-D4	1035737/10.22	517869- 2071474	9.72-10.72
		Naphthalene-D8	4301194/13.22	2150597- 8602388	12.72-13.72
		Acenaphthalene-D10	918321/17.42	459161- 1836642	16.92-17.92
		Phenanthrene-D10	3764477/20.96	1882239- 7528954	20.46-21.46
		Chrysene-D12	3109401/27.32	1554701- 6218802	26.82-27.82
		Perylene-D12	2595414/30.51	1297707- 5190828	30.01-31.01
1507202.d	11/17/03 05:05	1,4-Dichlorobenzene-D4	1000388/10.20	Ratio: 0.966	Diff.: -0.02
		Naphthalene-D8	3958983/13.19	Ratio: 0.920	Diff.: -0.03
		Acenaphthalene-D10	873556/17.41	Ratio: 0.951	Diff.: -0.01
		Phenanthrene-D10	3793688/20.92	Ratio: 1.008	Diff.: -0.04
		Chrysene-D12	3368906/27.30	Ratio: 1.083	Diff.: -0.02
		Perylene-D12	2693949/30.49	Ratio: 1.038	Diff.: -0.02
1507203.d	11/17/03 05:47	1,4-Dichlorobenzene-D4	975130/10.21	Ratio: 0.941	Diff.: -0.01
		Naphthalene-D8	3954085/13.19	Ratio: 0.919	Diff.: -0.03
		Acenaphthalene-D10	864115/17.42	Ratio: 0.941	Diff.: 0.00
		Phenanthrene-D10	3824472/20.93	Ratio: 1.016	Diff.: -0.03
		Chrysene-D12	3396699/27.30	Ratio: 1.092	Diff.: -0.02
		Perylene-D12	2720719/30.49	Ratio: 1.048	Diff.: -0.02
1507901.d	11/17/03 06:29	1,4-Dichlorobenzene-D4	1036625/10.21	Ratio: 1.001	Diff.: -0.01
		Naphthalene-D8	4159555/13.20	Ratio: 0.967	Diff.: -0.02
		Acenaphthalene-D10	912079/17.41	Ratio: 0.993	Diff.: -0.01
		Phenanthrene-D10	4153384/20.93	Ratio: 1.103	Diff.: -0.03
		Chrysene-D12	3682435/27.30	Ratio: 1.184	Diff.: -0.02
		Perylene-D12	2866918/30.49	Ratio: 1.105	Diff.: -0.02
1507902.d	11/17/03 07:11	1,4-Dichlorobenzene-D4	1020390/10.21	Ratio: 0.985	Diff.: -0.01
		Naphthalene-D8	4095745/13.19	Ratio: 0.952	Diff.: -0.03
		Acenaphthalene-D10	909093/17.41	Ratio: 0.990	Diff.: -0.01
		Phenanthrene-D10	4133803/20.93	Ratio: 1.098	Diff.: -0.03
		Chrysene-D12	3564937/27.30	Ratio: 1.147	Diff.: -0.02
		Perylene-D12	2728838/30.49	Ratio: 1.051	Diff.: -0.02
1507903.d	11/17/03 07:53	1,4-Dichlorobenzene-D4	982653/10.22	Ratio: 0.949	Diff.: 0.00
		Naphthalene-D8	3968580/13.20	Ratio: 0.923	Diff.: -0.02
		Acenaphthalene-D10	892253/17.41	Ratio: 0.972	Diff.: -0.01
		Phenanthrene-D10	4026153/20.92	Ratio: 1.070	Diff.: -0.04
		Chrysene-D12	3364141/27.30	Ratio: 1.082	Diff.: -0.02
		Perylene-D12	2349381/30.48	Ratio: 0.905	Diff.: -0.03
1507904.d	11/17/03 08:35	1,4-Dichlorobenzene-D4	1039994/10.21	Ratio: 1.004	Diff.: -0.01
		Naphthalene-D8	4132091/13.20	Ratio: 0.961	Diff.: -0.02
		Acenaphthalene-D10	950536/17.41	Ratio: 1.035	Diff.: -0.01
		Phenanthrene-D10	4311082/20.93	Ratio: 1.145	Diff.: -0.03
		Chrysene-D12	3420360/27.29	Ratio: 1.100	Diff.: -0.03
		Perylene-D12	2218830/30.48	Ratio: 0.855	Diff.: -0.03
1508001.d	11/17/03 09:17	1,4-Dichlorobenzene-D4	987233/10.20	Ratio: 0.953	Diff.: -0.02
		Naphthalene-D8	4062606/13.18	Ratio: 0.945	Diff.: -0.04
		Acenaphthalene-D10	935403/17.41	Ratio: 1.019	Diff.: -0.01
		Phenanthrene-D10	4085093/20.92	Ratio: 1.085	Diff.: -0.04
		Chrysene-D12	3336361/27.29	Ratio: 1.073	Diff.: -0.03
		Perylene-D12	2315767/30.48	Ratio: 0.892	Diff.: -0.03
1508101.d	11/17/03 09:59	1,4-Dichlorobenzene-D4	976673/10.20	Ratio: 0.943	Diff.: -0.02
		Naphthalene-D8	4143766/13.20	Ratio: 0.963	Diff.: -0.02
		Acenaphthalene-D10	942380/17.41	Ratio: 1.026	Diff.: -0.01
		Phenanthrene-D10	4147774/20.94	Ratio: 1.102	Diff.: -0.02
		Chrysene-D12	3303749/27.30	Ratio: 1.063	Diff.: -0.02
		Perylene-D12	2228805/30.48	Ratio: 0.859	Diff.: -0.03

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031117.1
Heated Purge: N/A

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
1510901.d	11/17/03 10:41	1,4-Dichlorobenzene-D4	1012591/10.20	Ratio: 0.978	Diff.: -0.02
		Naphthalene-D8	4162225/13.19	Ratio: 0.968	Diff.: -0.03
		Acenaphthalene-D10	957277/17.41	Ratio: 1.042	Diff.: -0.01
		Phenanthrene-D10	4264129/20.93	Ratio: 1.133	Diff.: -0.03
		Chrysene-D12	3455607/27.31	Ratio: 1.111	Diff.: -0.01
		Perylene-D12	2288299/30.49	Ratio: 0.882	Diff.: -0.02
1510902.d	11/17/03 11:23	1,4-Dichlorobenzene-D4	963715/10.20	Ratio: 0.930	Diff.: -0.02
		Naphthalene-D8	4040615/13.19	Ratio: 0.939	Diff.: -0.03
		Acenaphthalene-D10	928730/17.41	Ratio: 1.011	Diff.: -0.01
		Phenanthrene-D10	4111573/20.92	Ratio: 1.092	Diff.: -0.04
		Chrysene-D12	3298291/27.30	Ratio: 1.061	Diff.: -0.02
		Perylene-D12	2165566/30.49	Ratio: 0.834	Diff.: -0.02
1510903.d	11/17/03 12:04	1,4-Dichlorobenzene-D4	1039395/10.20	Ratio: 1.004	Diff.: -0.02
		Naphthalene-D8	4201982/13.19	Ratio: 0.977	Diff.: -0.03
		Acenaphthalene-D10	963395/17.41	Ratio: 1.049	Diff.: -0.01
		Phenanthrene-D10	4289579/20.92	Ratio: 1.139	Diff.: -0.04
		Chrysene-D12	3604934/27.30	Ratio: 1.159	Diff.: -0.02
		Perylene-D12	2478339/30.49	Ratio: 0.955	Diff.: -0.02
1510904.d	11/17/03 12:46	1,4-Dichlorobenzene-D4	1043012/10.21	Ratio: 1.007	Diff.: -0.01
		Naphthalene-D8	4274073/13.19	Ratio: 0.994	Diff.: -0.03
		Acenaphthalene-D10	976904/17.41	Ratio: 1.064	Diff.: -0.01
		Phenanthrene-D10	4336474/20.93	Ratio: 1.152	Diff.: -0.03
		Chrysene-D12	3549328/27.31	Ratio: 1.141	Diff.: -0.01
		Perylene-D12	2425711/30.49	Ratio: 0.935	Diff.: -0.02
1510905.d	11/17/03 13:28	1,4-Dichlorobenzene-D4	1004878/10.21	Ratio: 0.970	Diff.: -0.01
		Naphthalene-D8	4223064/13.20	Ratio: 0.982	Diff.: -0.02
		Acenaphthalene-D10	987169/17.41	Ratio: 1.075	Diff.: -0.01
		Phenanthrene-D10	4349201/20.94	Ratio: 1.155	Diff.: -0.02
		Chrysene-D12	3358834/27.31	Ratio: 1.080	Diff.: -0.01
		Perylene-D12	2118578/30.50	Ratio: 0.816	Diff.: -0.01
1510906.d	11/17/03 14:10	1,4-Dichlorobenzene-D4	991038/10.20	Ratio: 0.957	Diff.: -0.02
		Naphthalene-D8	4091502/13.19	Ratio: 0.951	Diff.: -0.03
		Acenaphthalene-D10	948965/17.41	Ratio: 1.033	Diff.: -0.01
		Phenanthrene-D10	4244710/20.93	Ratio: 1.128	Diff.: -0.03
		Chrysene-D12	3474109/27.31	Ratio: 1.117	Diff.: -0.01
		Perylene-D12	2259110/30.50	Ratio: 0.870	Diff.: -0.01
1510907.d	11/17/03 14:52	1,4-Dichlorobenzene-D4	1038640/10.20	Ratio: 1.003	Diff.: -0.02
		Naphthalene-D8	4400263/13.19	Ratio: 1.023	Diff.: -0.03
		Acenaphthalene-D10	1002641/17.42	Ratio: 1.092	Diff.: 0.00
		Phenanthrene-D10	4236555/20.94	Ratio: 1.125	Diff.: -0.02
		Chrysene-D12	2890131/27.33	Ratio: 0.929	Diff.: 0.01
		Perylene-D12	1769359/30.52	Ratio: 0.682	Diff.: 0.01

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031119.1
Heated Purge: N/A

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Semi-Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
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Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d19.d	11/19/03 13:18	dftpp std [none]	WW	IP		
spcc19.d	11/19/03 13:59	bna std 30 [none]	WW	CV		
1507401.d	11/19/03 15:26	bna-w 870ml/1ml 1:1 tto sf031110w48	WW			
1510908.d	11/19/03 16:08	bna-w 980ml/1ml 1:1 no surr	WW			
1510909.d	11/19/03 16:50	bna-w 970ml/1ml 1:1 sf031111w49	WW			
1511001.d	11/19/03 17:32	bna-w 910ml/1ml 1:1 tto sf031111w49	WW		2	
1511101.d	11/19/03 18:14	bna-w 910ml/1ml 1:1 tto sf031111w49	WW		2	
1511202.d	11/19/03 18:56	bna-w 950ml/1ml 1:1 tto sf031111w49	WW			
1511528.d	11/19/03 19:38	bna-w 1000ml/1ml 3:1 sf031111w49	WW			
1512201.d	11/19/03 20:20	bna-w 910ml/1ml 20:1 tto sf031111w49	WW			
1512401.d	11/19/03 21:02	bna-w 920ml/1ml 1:1 tto sf031111w49	WW			
1513201.d	11/19/03 21:43	tclp-w 1000ml/1ml 6:1 sf031111w49	WW			
1516701.d	11/19/03 22:25	bna-s 30g/1ml 1:1 sf031027s13	SO			
1511301.d	11/19/03 23:07	tclp-w 650ml/ml 10:1 sf031114w50	WW			
1510503r.d	11/19/03 23:49	bna-s 30g/ml 3:1 sf031027s13	SO			

Matrix (Mtx) Summary

Water Samples:	11	Soil Samples:	2
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	0
Water Blanks:	0	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 2
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Form 7b): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Level: LOW

Analytical Batch: u031119.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc19.d	2-Fluorophenol	31.6/100.0	n/a	10.0/110.0	WW
	2-Fluorobiphenyl	30.4/100.0	n/a	10.0/116.0	
	Nitrobenzene-D5	31.8/100.0	n/a	10.0/114.0	
	Phenol-d5	32.1/100.0	n/a	10.0/110.0	
	2,4,6-Tribromophenol	30.3/100.0	n/a	10.0/123.0	
	Terphenyl-D14	29.9/100.0	n/a	10.0/141.0	
				Total Outliers:	n/a
1507401.d	2-Fluorophenol	50.2/100.0	50.2	10.0/110.0	WW
	2-Fluorobiphenyl	53.3/100.0	53.3	10.0/116.0	
	Nitrobenzene-D5	57.2/100.0	57.2	10.0/114.0	
	Phenol-d5	38.9/100.0	38.9	10.0/110.0	
	2,4,6-Tribromophenol	73.4/100.0	73.4	10.0/123.0	
	Terphenyl-D14	60.1/100.0	60.1	10.0/141.0	
				Total Outliers:	0
1510908.d	2-Fluorophenol	3.0/100.0	n/a	10.0/110.0	WW
	2-Fluorobiphenyl	0.1/100.0	n/a	10.0/116.0	
	Nitrobenzene-D5	4.6/100.0	n/a	10.0/114.0	
	Phenol-d5	0.4/100.0	n/a	10.0/110.0	
	Terphenyl-D14	0.0/100.0	n/a	10.0/141.0	
				Total Outliers:	n/a
1510909.d	2-Fluorophenol	37.3/100.0	37.3	10.0/110.0	WW
	2-Fluorobiphenyl	38.6/100.0	38.6	10.0/116.0	
	Nitrobenzene-D5	42.0/100.0	42.0	10.0/114.0	
	Phenol-d5	27.9/100.0	27.9	10.0/110.0	
	2,4,6-Tribromophenol	50.2/100.0	50.2	10.0/123.0	
	Terphenyl-D14	41.8/100.0	41.8	10.0/141.0	
				Total Outliers:	0
1511001.d	2-Fluorophenol	2.9/100.0	2.9 *	10.0/110.0	WW
	2-Fluorobiphenyl	6.9/100.0	6.9 *	10.0/116.0	
	Nitrobenzene-D5	5.9/100.0	5.9 *	10.0/114.0	
	Phenol-d5	1.9/100.0	1.9 *	10.0/110.0	
	2,4,6-Tribromophenol	7.4/100.0	7.4 *	10.0/123.0	
	Terphenyl-D14	6.9/100.0	6.9 *	10.0/141.0	
				Total Outliers:	6
1511101.d	2-Fluorophenol	0.5/100.0	0.5 *	10.0/110.0	WW
	2-Fluorobiphenyl	1.8/100.0	1.8 *	10.0/116.0	
	Nitrobenzene-D5	1.2/100.0	1.2 *	10.0/114.0	
	Phenol-d5	0.5/100.0	0.5 *	10.0/110.0	
	2,4,6-Tribromophenol	3.8/100.0	3.8 *	10.0/123.0	
	Terphenyl-D14	4.0/100.0	4.0 *	10.0/141.0	
				Total Outliers:	6
1511202.d	2-Fluorophenol	33.6/100.0	33.6	10.0/110.0	WW
	2-Fluorobiphenyl	38.9/100.0	38.9	10.0/116.0	
	Nitrobenzene-D5	41.0/100.0	41.0	10.0/114.0	
	Phenol-d5	24.1/100.0	24.1	10.0/110.0	
	2,4,6-Tribromophenol	50.3/100.0	50.3	10.0/123.0	
	Terphenyl-D14	42.2/100.0	42.2	10.0/141.0	
				Total Outliers:	0

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Level: LOW

Analytical Batch: u031119.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
1511528.d	2-Fluorophenol	13.4/100.0	13.4	10.0/110.0	WW
	2-Fluorobiphenyl	17.3/100.0	17.3	10.0/116.0	
	Nitrobenzene-D5	16.1/100.0	16.1	10.0/114.0	
	Phenol-d5	10.7/100.0	10.7	10.0/110.0	
	2,4,6-Tribromophenol	20.3/100.0	20.3	10.0/123.0	
	Terphenyl-D14	20.9/100.0	20.9	10.0/141.0	
				Total Outliers:	0
1512201.d	2-Fluorophenol	2.1/100.0	n/a	10.0/110.0	WW
	2-Fluorobiphenyl	3.1/100.0	n/a	10.0/116.0	
	Nitrobenzene-D5	3.0/100.0	n/a	10.0/114.0	
	Phenol-d5	0.2/100.0	n/a	10.0/110.0	
	2,4,6-Tribromophenol	3.1/100.0	n/a	10.0/123.0	
	Terphenyl-D14	3.1/100.0	n/a	10.0/141.0	
				Total Outliers:	n/a
1512401.d	2-Fluorophenol	44.0/100.0	44.0	10.0/110.0	WW
	2-Fluorobiphenyl	48.6/100.0	48.6	10.0/116.0	
	Nitrobenzene-D5	50.7/100.0	50.7	10.0/114.0	
	Phenol-d5	34.1/100.0	34.1	10.0/110.0	
	2,4,6-Tribromophenol	67.0/100.0	67.0	10.0/123.0	
	Terphenyl-D14	56.2/100.0	56.2	10.0/141.0	
				Total Outliers:	0
1513201.d	2-Fluorophenol	58.3/100.0	58.3	10.0/110.0	WW
	2-Fluorobiphenyl	72.5/100.0	72.5	10.0/116.0	
	Nitrobenzene-D5	73.1/100.0	73.1	10.0/114.0	
	Phenol-d5	40.2/100.0	40.2	10.0/110.0	
	2,4,6-Tribromophenol	83.2/100.0	83.2	10.0/123.0	
	Terphenyl-D14	76.5/100.0	76.5	10.0/141.0	
				Total Outliers:	0
1516701.d	2-Fluorophenol	55.4/100.0	55.4	13.2/121.0	SO
	2-Fluorobiphenyl	58.1/100.0	58.1	10.0/115.0	
	Nitrobenzene-D5	59.8/100.0	59.8	18.5/120.0	
	Phenol-d5	63.1/100.0	63.1	16.9/113.0	
	2,4,6-Tribromophenol	62.7/100.0	62.7	13.4/137.0	
	Terphenyl-D14	55.6/100.0	55.6	10.3/137.0	
				Total Outliers:	0
1511301.d	2-Fluorophenol	40.3/100.0	40.3	10.0/110.0	WW
	2-Fluorobiphenyl	87.2/100.0	87.2	10.0/116.0	
	Nitrobenzene-D5	76.9/100.0	76.9	10.0/114.0	
	Phenol-d5	68.4/100.0	68.4	10.0/110.0	
	2,4,6-Tribromophenol	95.9/100.0	95.9	10.0/123.0	
	Terphenyl-D14	87.8/100.0	87.8	10.0/141.0	
				Total Outliers:	0
1510503r.d	2-Fluorophenol	36.7/100.0	36.7	13.2/121.0	SO
	2-Fluorobiphenyl	34.6/100.0	34.6	10.0/115.0	
	Nitrobenzene-D5	33.6/100.0	33.6	18.5/120.0	
	Phenol-d5	43.1/100.0	43.1	16.9/113.0	
	2,4,6-Tribromophenol	41.0/100.0	41.0	13.4/137.0	
	Terphenyl-D14	38.8/100.0	38.8	10.3/137.0	
				Total Outliers:	0

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031119.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d19.d	11/19/03 13:18	51	198	30.0	60.0	58.8	134592	PASS
		68	69	0.0	2.0	0.0	0	PASS
		69	198	0.0	100.0	61.6	140992	PASS
		70	69	0.0	2.0	0.0	0	PASS
		127	198	40.0	60.0	54.2	123968	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	228928	PASS
		199	198	5.0	9.0	6.9	15835	PASS
		275	198	10.0	30.0	20.2	46152	PASS
		365	198	1.0	100.0	2.1	4736	PASS
		441	443	0.0	100.0	0.0	0	PASS
		442	198	40.0	100.0	49.6	113440	PASS
		443	442	17.0	23.0	21.0	23872	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031119.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
bn031113.m	1,4-DICHLOROBENZENE-D4	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Pyridine	A	1.989	4.60	1.909	2.119	1.913	2.029	2.055	1.907				
	N-Nitrosodimethylamine	A	1.235	4.92	1.177	1.300	1.180	1.283	1.288	1.183				
	2-Picoline	A	1.893	4.65	1.830	1.973	1.820	1.956	1.986	1.791				
	Methyl methanesulfonate	A	0.853	4.66	0.822	0.892	0.819	0.880	0.895	0.811				
	2-Fluorophenol	A	1.441	4.56	1.385	1.498	1.373	1.490	1.512	1.385				
	Ethyl methanesulfonate	A	1.403	5.04	1.360	1.477	1.344	1.453	1.467	1.316				
	Phenol-d5	A	1.993	5.04	1.924	2.110	1.928	2.057	2.077	1.864				
	Phenol **	A	2.000	5.26	1.948	2.142	1.934	2.044	2.073	1.856				
	Aniline	A	2.302	6.25	2.112	2.436	2.247	2.417	2.430	2.172				
	2-Chlorophenol **	A	1.497	4.32	1.452	1.567	1.454	1.537	1.556	1.413				
	Bis(2-chloroethyl)ether	A	1.677	5.87	1.730	1.779	1.599	1.727	1.709	1.517				
	1,3-Dichlorobenzene	A	1.470	4.72	1.449	1.559	1.407	1.511	1.514	1.380				
	1,4-Dichlorobenzene **	A	1.504	5.22	1.506	1.616	1.449	1.527	1.539	1.388				
	1,2-Dichlorobenzene	A	1.429	4.82	1.414	1.517	1.375	1.457	1.478	1.331				
	Bis(2-chloroisopropyl)ether	A	4.021	6.05	4.057	4.374	3.856	4.050	4.128	3.660				
	Benzyl Alcohol	A	0.914	6.18	0.835	0.931	0.872	0.963	0.985	0.899				
	Acetophenone	A	2.077	5.69	2.004	2.234	2.006	2.142	2.157	1.921				
	o-Cresol	A	1.377	5.28	1.319	1.470	1.317	1.418	1.435	1.301				
	p,m-Cresol	A	1.807	5.35	1.730	1.951	1.756	1.857	1.852	1.693				
	Hexachloroethane	A	0.589	4.58	0.582	0.623	0.562	0.605	0.608	0.556				
	N-Nitrosodi-n-propylamine**	A	1.209	5.03	1.187	1.288	1.161	1.241	1.248	1.126				
	NAPHTHALENE-D8	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Nitrobenzene-d5	A	0.390	4.98	0.380	0.414	0.381	0.405	0.398	0.361				
	Nitrobenzene	A	0.211	4.90	0.203	0.222	0.205	0.220	0.219	0.198				
	N-Nitrosopiperidine	A	0.214	5.64	0.206	0.230	0.208	0.223	0.220	0.198				
	Isophorone	A	0.726	5.81	0.740	0.786	0.712	0.737	0.722	0.657				
	2-Nitrophenol	A	0.228	5.95	0.209	0.240	0.223	0.240	0.238	0.216				
	2,4-Dimethylphenol	A	0.344	6.20	0.344	0.377	0.335	0.353	0.345	0.312				
	Bis(2-chloroethoxy)methane	A	0.502	7.00	0.508	0.556	0.489	0.512	0.497	0.448				
	2,4-Dichlorophenol	A	0.283	5.59	0.271	0.303	0.277	0.294	0.291	0.261				
	1,2,4-Trichlorobenzene **	A	0.285	5.48	0.286	0.306	0.277	0.294	0.288	0.260				
	Naphthalene	A	1.076	8.28	1.142	1.190	1.054	1.079	1.061	0.929				
	4-Chloroaniline	A	0.450	6.51	0.434	0.490	0.449	0.466	0.458	0.404				
	2,6-Dichlorophenol	A	0.274	5.94	0.272	0.298	0.268	0.279	0.276	0.248				
	Hexachlorobutadiene	A	0.138	5.83	0.138	0.150	0.133	0.141	0.139	0.126				
	N-Nitroso-di-n-butylamine	A	0.276	5.56	0.275	0.299	0.265	0.282	0.278	0.254				
	4-Chloro-3-methylphenol **	A	0.329	5.30	0.321	0.348	0.319	0.345	0.337	0.303				
	2-Methylnaphthalene	A	0.581	10.3	0.620	0.672	0.553	0.578	0.564	0.497				
	ACENAPHTHALENE-D10	I			5.000	10.00	20.00	30.00	35.00	50.00				
	1,2,4,5-Tetrachlorobenzene	A	1.210	6.30	1.198	1.323	1.161	1.229	1.249	1.101				
	Hexachlorocyclopentadiene	A	0.214	24.8	0.123	0.186	0.211	0.260	0.260	0.242				
	2,4,6-Trichlorophenol	A	0.841	5.73	0.825	0.904	0.798	0.864	0.875	0.779				
	2,4,5-Trichlorophenol	A	0.882	6.81	0.856	0.979	0.848	0.899	0.906	0.805				
	2-Fluorobiphenyl	A	3.100	8.12	3.232	3.468	3.004	3.099	3.092	2.707				
	2-Chloronaphthalene	A	2.818	6.68	2.859	3.102	2.709	2.840	2.861	2.534				
	1-Chloronaphthalene	A	2.692	8.24	2.825	3.026	2.589	2.671	2.676	2.367				
	2-Nitroaniline	A	1.348	5.73	1.267	1.423	1.297	1.403	1.426	1.271				
	Acenaphthylene	A	4.024	7.86	4.174	4.486	3.893	4.039	4.025	3.527				
	Dimethyl Phthalate	A	3.621	7.49	3.802	4.006	3.462	3.620	3.615	3.219				
	2,6-Dinitrotoluene	A	0.951	4.94	0.906	1.008	0.921	0.979	0.989	0.900				
	3-Nitroaniline	A	1.055	5.98	0.968	1.117	1.025	1.106	1.108	1.008				
	Acenaphthene **	A	2.870	7.40	2.964	3.188	2.776	2.864	2.884	2.544				
	2,4-Dinitrophenol	L	0.386	41.6	0.112	0.281	0.410	0.498	0.517	0.497	0.99	-0.06	0.559	0.00
	Dibenzofuran	A	4.077	7.60	4.221	4.547	3.945	4.069	4.073	3.607				
	4-Nitrophenol **	L	0.612	13.7	0.472	0.580	0.591	0.683	0.703	0.640	0.99	-0.02	0.682	0.00
	2,4-Dinitrotoluene **	A	1.261	5.86	1.207	1.355	1.248	1.295	1.307	1.151				
	2,3,4,6-Tetrachlorophenol	A	0.562	7.52	0.495	0.569	0.543	0.598	0.613	0.551				
	Fluorene	A	3.343	10.2	3.609	3.827	3.264	3.263	3.251	2.844				
	Diethyl phthalate	A	3.706	12.8	4.246	4.268	3.613	3.530	3.544	3.037				
	4-Chlorophenyl phenyl ether	A	1.516	6.48	1.557	1.652	1.471	1.532	1.529	1.356				
	4-Nitroaniline	A	1.060	7.12	0.953	1.108	1.053	1.123	1.133	0.987				

Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031119.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
bn031113.m	2,4,6-Tribromophenol	A	0.407	5.47	0.378	0.425	0.395	0.426	0.428	0.388				
	PHENANTHRENE-D10	I			5.000	10.00	20.00	30.00	35.00	50.00				
	4,6-Dinitro-2-methylphenol	A	0.168	9.62	0.139	0.177	0.170	0.181	0.180	0.160				
	N-Nitrosodiphenylamine	A	1.314	8.96	1.411	1.477	1.278	1.293	1.288	1.138				
	1,2-Diphenylhydrazine	A	0.235	6.94	0.238	0.260	0.227	0.237	0.236	0.210				
	Azobenzene	A	0.235	6.94	0.238	0.260	0.227	0.237	0.236	0.210				
	4-Bromophenyl phenyl ether	A	0.198	5.14	0.195	0.212	0.192	0.204	0.202	0.183				
	1,3,5-Trinitrobenzene	A	0.115	8.92	0.097	0.117	0.114	0.125	0.125	0.114				
	Phenacetin	A	0.508	4.91	0.495	0.536	0.498	0.527	0.524	0.470				
	Hexachlorobenzene	A	0.064	4.88	0.064	0.068	0.063	0.066	0.066	0.059				
	4-Aminobiphenyl	A	0.698	19.6	0.436	0.691	0.720	0.804	0.807	0.731				
	Pentachlorophenol **	L	0.070	20.7		0.049	0.062	0.078	0.079	0.084	0.99	-0.01	0.086	0.00
	Pentachlorophenol - Low Level	L	0.064	33.0	0.030	0.049	0.062	0.078	0.079	0.084	1.00	-0.01	0.091	0.00
	Pronamide	A	0.384	9.01	0.406	0.434	0.375	0.382	0.374	0.331				
	Pentachloronitrobenzene	A	0.085	6.39	0.087	0.092	0.082	0.087	0.085	0.076				
	Phenanthrene	A	1.127	8.80	1.198	1.271	1.080	1.123	1.107	0.983				
	Anthracene	A	1.148	8.73	1.233	1.284	1.107	1.137	1.126	0.999				
	di-N-butyl phthalate	A	1.649	9.87	1.782	1.872	1.610	1.621	1.603	1.403				
	Fluoranthene	A	1.226	8.24	1.292	1.367	1.188	1.229	1.209	1.068				
	Terphenyl-d14	A	0.793	7.77	0.828	0.879	0.772	0.799	0.785	0.694				
	CHRYSENE-D12	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Benzidine	A	0.377	25.9	0.201	0.350	0.368	0.446	0.468	0.428				
	Pyrene **	A	1.407	5.34	1.411	1.523	1.342	1.430	1.427	1.309				
	p-Dimethylaminoazobenzene	A	0.297	6.00	0.270	0.300	0.285	0.315	0.316	0.293				
	Butyl benzyl phthalate	A	0.889	5.33	0.847	0.942	0.845	0.930	0.925	0.847				
	TCDD	A												
	Benzo(a)anthracene	A	1.275	5.40	1.262	1.365	1.218	1.318	1.309	1.179				
	3,3'-Dichlorobenzidine	A	0.408	6.19	0.375	0.427	0.393	0.433	0.431	0.389				
	Chrysene	A	1.137	6.18	1.163	1.237	1.085	1.150	1.154	1.033				
	Bis(2-ethylhexyl)phthalate	A	1.172	5.66	1.149	1.263	1.133	1.210	1.200	1.075				
	Di-n-octyl phthalate	A	2.157	6.07	2.113	2.321	2.070	2.248	2.224	1.966				
	PERYLENE-D12	I			5.000	10.00	20.00	30.00	35.00	50.00				
	Benzo(b)fluoranthene	A	1.514	7.18	1.487	1.689	1.527	1.515	1.517	1.348				
	7,12-Dimethylbenz(a)anthracene	A	0.677	5.22	0.636	0.717	0.652	0.704	0.706	0.649				
	Benzo(k)fluoranthene	A	1.453	6.01	1.504	1.501	1.332	1.514	1.516	1.349				
	Benzo(a)pyrene	A	1.349	5.16	1.355	1.447	1.305	1.374	1.373	1.242				
	3-Methylcholanthrene	A	0.667	5.70	0.677	0.718	0.635	0.684	0.676	0.611				
	Dibenz(a,j)acridine	A	0.930	5.07	0.908	0.988	0.878	0.964	0.962	0.881				
	Indeno(1,2,3-cd)pyrene	A	1.257	7.15	1.313	1.378	1.206	1.265	1.266	1.116				
	Dibenzo(a,h)anthracene	A	1.049	7.71	1.104	1.160	1.002	1.053	1.048	0.926				
	Benzo(ghi)perylene	A	1.048	7.88	1.115	1.166	1.004	1.042	1.031	0.932				

Calibration Date: 11/13/03

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:
Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)

Calibration (1): bn031113.M (Mean %RSD: 7.72)

Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Initial Calibration Date: (see Form 6)

Analytical Batch: u031119.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc19.d	11/19/03 13:59	4-Nitrophenol	0.660	0.05
		2,4-Dinitrophenol	0.440	0.05
		Hexachlorocyclopentadiene	0.250	0.05
		N-Nitrosodi-n-propylamine	1.356	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza
Initial Calibration Date: (see Form 6)

Analytical Batch: u031119.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spcc19.d	11/19/03 13:59	2-Nitrophenol	31.9/ 30.0	6.4/ 20.0
		Acenaphthene	30.0/ 30.0	0.1/ 20.0
		Benzo(a)pyrene	30.8/ 30.0	2.7/ 20.0
		4-Chloro-3-methylphenol	31.7/ 30.0	5.5/ 20.0
		1,4-Dichlorobenzene	31.1/ 30.0	3.7/ 20.0
		2,4-Dichlorophenol	31.0/ 30.0	3.4/ 20.0
		Di-n-octyl phthalate	33.2/ 30.0	10.8/ 20.0
		Fluoranthene	30.1/ 30.0	0.2/ 20.0
		Hexachlorobutadiene	30.3/ 30.0	1.1/ 20.0
		N-Nitrosodiphenylamine	29.3/ 30.0	2.3/ 20.0
		Pentachlorophenol	27.3/ 30.0	9.0/ 20.0
		Pentachlorophenol	27.0/ 30.0	10.0/ 20.0
		Phenol	31.8/ 30.0	5.9/ 20.0
		2,4,6-Trichlorophenol	31.1/ 30.0	3.6/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031119.1
Heated Purge: N/A

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
spcc19.d	11/19/03 13:59	1,4-Dichlorobenzene-D4	980529/10.25	490265- 1961058	9.75-10.75
		Naphthalene-D8	4143276/13.24	2071638- 8286552	12.74-13.74
		Acenaphthalene-D10	888480/17.45	444240- 1776960	16.95-17.95
		Phenanthrene-D10	3676370/20.99	1838185- 7352740	20.49-21.49
		Chrysene-D12	2972051/27.36	1486026- 5944102	26.86-27.86
		Perylene-D12	2385818/30.55	1192909- 4771636	30.05-31.05
1507401.d	11/19/03 15:26	1,4-Dichlorobenzene-D4	1094032/10.24	Ratio: 1.116	Diff.: -0.01
		Naphthalene-D8	4519610/13.23	Ratio: 1.091	Diff.: -0.01
		Acenaphthalene-D10	1030208/17.45	Ratio: 1.160	Diff.: 0.00
		Phenanthrene-D10	4387482/20.97	Ratio: 1.193	Diff.: -0.02
		Chrysene-D12	3359041/27.34	Ratio: 1.130	Diff.: -0.02
		Perylene-D12	2148846/30.53	Ratio: 0.901	Diff.: -0.02
1510908.d	11/19/03 16:08	1,4-Dichlorobenzene-D4	1278817/10.27	Ratio: 1.304	Diff.: 0.02
		Naphthalene-D8	4908785/13.24	Ratio: 1.185	Diff.: 0.00
		Acenaphthalene-D10	1052423/17.45	Ratio: 1.185	Diff.: 0.00
		Phenanthrene-D10	4432545/20.96	Ratio: 1.206	Diff.: -0.03
		Chrysene-D12	3667142/27.34	Ratio: 1.234	Diff.: -0.02
		Perylene-D12	2581429/30.53	Ratio: 1.082	Diff.: -0.02
1510909.d	11/19/03 16:50	1,4-Dichlorobenzene-D4	1032545/10.23	Ratio: 1.053	Diff.: -0.02
		Naphthalene-D8	4287562/13.22	Ratio: 1.035	Diff.: -0.02
		Acenaphthalene-D10	972918/17.44	Ratio: 1.095	Diff.: -0.01
		Phenanthrene-D10	4180979/20.96	Ratio: 1.137	Diff.: -0.03
		Chrysene-D12	3335240/27.34	Ratio: 1.122	Diff.: -0.02
		Perylene-D12	2173005/30.53	Ratio: 0.911	Diff.: -0.02
1511001.d	11/19/03 17:32	1,4-Dichlorobenzene-D4	1057976/10.23	Ratio: 1.079	Diff.: -0.02
		Naphthalene-D8	4416734/13.22	Ratio: 1.066	Diff.: -0.02
		Acenaphthalene-D10	1002501/17.44	Ratio: 1.128	Diff.: -0.01
		Phenanthrene-D10	4248665/20.95	Ratio: 1.156	Diff.: -0.04
		Chrysene-D12	3342501/27.33	Ratio: 1.125	Diff.: -0.03
		Perylene-D12	2192574/30.52	Ratio: 0.919	Diff.: -0.03
1511101.d	11/19/03 18:14	1,4-Dichlorobenzene-D4	1119707/10.23	Ratio: 1.142	Diff.: -0.02
		Naphthalene-D8	4618015/13.22	Ratio: 1.115	Diff.: -0.02
		Acenaphthalene-D10	1023358/17.44	Ratio: 1.152	Diff.: -0.01
		Phenanthrene-D10	4346125/20.96	Ratio: 1.182	Diff.: -0.03
		Chrysene-D12	3091846/27.35	Ratio: 1.040	Diff.: -0.01
		Perylene-D12	1924338/30.53	Ratio: 0.807	Diff.: -0.02
1511202.d	11/19/03 18:56	1,4-Dichlorobenzene-D4	1082304/10.23	Ratio: 1.104	Diff.: -0.02
		Naphthalene-D8	4447106/13.22	Ratio: 1.073	Diff.: -0.02
		Acenaphthalene-D10	995706/17.44	Ratio: 1.121	Diff.: -0.01
		Phenanthrene-D10	4193182/20.96	Ratio: 1.141	Diff.: -0.03
		Chrysene-D12	3123043/27.34	Ratio: 1.051	Diff.: -0.02
		Perylene-D12	1966470/30.52	Ratio: 0.824	Diff.: -0.03
1511528.d	11/19/03 19:38	1,4-Dichlorobenzene-D4	969112/10.22	Ratio: 0.988	Diff.: -0.03
		Naphthalene-D8	4082739/13.21	Ratio: 0.985	Diff.: -0.03
		Acenaphthalene-D10	910845/17.43	Ratio: 1.025	Diff.: -0.02
		Phenanthrene-D10	3733977/20.95	Ratio: 1.016	Diff.: -0.04
		Chrysene-D12	2965675/27.33	Ratio: 0.998	Diff.: -0.03
		Perylene-D12	1893928/30.51	Ratio: 0.794	Diff.: -0.04
1512201.d	11/19/03 20:20	1,4-Dichlorobenzene-D4	1142636/10.23	Ratio: 1.165	Diff.: -0.02
		Naphthalene-D8	4669182/13.22	Ratio: 1.127	Diff.: -0.02
		Acenaphthalene-D10	1027567/17.43	Ratio: 1.157	Diff.: -0.02
		Phenanthrene-D10	4300663/20.96	Ratio: 1.170	Diff.: -0.03
		Chrysene-D12	3027018/27.35	Ratio: 1.018	Diff.: -0.01
		Perylene-D12	1853725/30.52	Ratio: 0.777	Diff.: -0.03

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.01.Urza

Analytical Batch: u031119.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*
1512401.d	11/19/03 21:02	1,4-Dichlorobenzene-D4	1098901/10.22	Ratio: 1.121	Diff.: -0.03
		Naphthalene-D8	4511181/13.21	Ratio: 1.089	Diff.: -0.03
		Acenaphthalene-D10	1013065/17.44	Ratio: 1.140	Diff.: -0.01
		Phenanthrene-D10	4082832/20.95	Ratio: 1.111	Diff.: -0.04
		Chrysene-D12	2924927/27.33	Ratio: 0.984	Diff.: -0.03
		Perylene-D12	1762807/30.52	Ratio: 0.739	Diff.: -0.03
1513201.d	11/19/03 21:43	1,4-Dichlorobenzene-D4	946985/10.22	Ratio: 0.966	Diff.: -0.03
		Naphthalene-D8	3992200/13.21	Ratio: 0.964	Diff.: -0.03
		Acenaphthalene-D10	884396/17.43	Ratio: 0.995	Diff.: -0.02
		Phenanthrene-D10	3848787/20.95	Ratio: 1.047	Diff.: -0.04
		Chrysene-D12	2716721/27.32	Ratio: 0.914	Diff.: -0.04
		Perylene-D12	1629922/30.51	Ratio: 0.683	Diff.: -0.04
1516701.d	11/19/03 22:25	1,4-Dichlorobenzene-D4	1080083/10.22	Ratio: 1.102	Diff.: -0.03
		Naphthalene-D8	4551573/13.21	Ratio: 1.099	Diff.: -0.03
		Acenaphthalene-D10	1030840/17.44	Ratio: 1.160	Diff.: -0.01
		Phenanthrene-D10	4232960/20.95	Ratio: 1.151	Diff.: -0.04
		Chrysene-D12	2636725/27.33	Ratio: 0.887	Diff.: -0.03
		Perylene-D12	1512169/30.53	Ratio: 0.634	Diff.: -0.02
1511301.d	11/19/03 23:07	1,4-Dichlorobenzene-D4	1030439/10.22	Ratio: 1.051	Diff.: -0.03
		Naphthalene-D8	4253223/13.22	Ratio: 1.027	Diff.: -0.02
		Acenaphthalene-D10	897502/17.45	Ratio: 1.010	Diff.: 0.00
		Phenanthrene-D10	3883400/20.96	Ratio: 1.056	Diff.: -0.03
		Chrysene-D12	2585038/27.32	Ratio: 0.870	Diff.: -0.04
		Perylene-D12	1584678/30.50	Ratio: 0.664	Diff.: -0.05
1510503r.d	11/19/03 23:49	1,4-Dichlorobenzene-D4	1006107/10.21	Ratio: 1.026	Diff.: -0.04
		Naphthalene-D8	4249191/13.21	Ratio: 1.026	Diff.: -0.03
		Acenaphthalene-D10	925687/17.43	Ratio: 1.042	Diff.: -0.02
		Phenanthrene-D10	3771458/20.95	Ratio: 1.026	Diff.: -0.04
		Chrysene-D12	2529632/27.33	Ratio: 0.851	Diff.: -0.03
		Perylene-D12	1522233/30.51	Ratio: 0.638	Diff.: -0.04

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Form 0: GC/MS injection Log - Semi-Volatile Organics

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A

Index of Applicable Reporting Forms

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Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
d02a.d	12/02/03 17:35	dftpp [none]	WW	IP		
spcc02a.d	12/02/03 18:17	bna std 50 [none]	WW	CV		
blk-02a.d	12/02/03 19:00	bna-w 1000ml/1ml 1:1 sf031110w48	WW	Bl		
blk-02am.d	12/02/03 19:43	bna-w 1000ml/1ml 1:1 sf031110w48	WW	MS	3	R
blk-02an.d	12/02/03 20:25	bna-w 1000ml/1ml 1:1 sf031110w48	WW	MS	3	R
lcs-02a.d	12/02/03 21:07	bna-w 1000ml/1ml 1:1 sf031110w48	WW	MS		
blk-02b.d	12/02/03 21:49	bna-w 1000ml/1ml 1:1 sf031111w49	WW	Bl		
blk-02bm.d	12/02/03 22:31	bna-w 1000ml/1ml 1:1 sf031111w49	WW	MS		
blk-02bn.d	12/02/03 23:13	bna-w 1000ml/1ml 1:1 sf031111w49	WW	MS		
lcs-02b.d	12/02/03 23:55	bna-w 1000ml/1ml 1:1 sf031111w49	WW	MS		

Matrix (Mtx) Summary

Water Samples:	0	Soil Samples:	0
Water Duplicates:	2	Soil Duplicates:	0
Water Spikes:	6	Soil Spikes:	0
Water Blanks:	2	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 0
3: Matrix Spike Outliers (Form 3b): 2
4: CVM Outliers (Form 7b): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra
Level: LOW

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc02a.d	2-Fluorophenol	48.3/100.0	n/a	10.0/110.0	WW
	2-Fluorobiphenyl	45.6/100.0	n/a	10.0/116.0	
	Nitrobenzene-D5	48.7/100.0	n/a	10.0/114.0	
	Phenol-d5	47.6/100.0	n/a	10.0/110.0	
	2,4,6-Tribromophenol	46.5/100.0	n/a	10.0/123.0	
	Terphenyl-D14	44.0/100.0	n/a	10.0/141.0	
				Total Outliers:	n/a
blk-02a.d	2-Fluorophenol	38.8/100.0	38.8	10.0/110.0	WW
	2-Fluorobiphenyl	28.2/100.0	28.2	10.0/116.0	
	Nitrobenzene-D5	46.7/100.0	46.7	10.0/114.0	
	Phenol-d5	31.4/100.0	31.4	10.0/110.0	
	2,4,6-Tribromophenol	50.6/100.0	50.6	10.0/123.0	
	Terphenyl-D14	50.8/100.0	50.8	10.0/141.0	
				Total Outliers:	0
blk-02am.d	2-Fluorophenol	44.5/100.0	44.5	10.0/110.0	WW
	2-Fluorobiphenyl	36.5/100.0	36.5	10.0/116.0	
	Nitrobenzene-D5	54.9/100.0	54.9	10.0/114.0	
	Phenol-d5	37.2/100.0	37.2	10.0/110.0	
	2,4,6-Tribromophenol	59.2/100.0	59.2	10.0/123.0	
	Terphenyl-D14	57.1/100.0	57.1	10.0/141.0	
				Total Outliers:	0
blk-02an.d	2-Fluorophenol	41.5/100.0	41.5	10.0/110.0	WW
	2-Fluorobiphenyl	34.2/100.0	34.2	10.0/116.0	
	Nitrobenzene-D5	51.5/100.0	51.5	10.0/114.0	
	Phenol-d5	33.0/100.0	33.0	10.0/110.0	
	2,4,6-Tribromophenol	55.6/100.0	55.6	10.0/123.0	
	Terphenyl-D14	54.0/100.0	54.0	10.0/141.0	
				Total Outliers:	0
lcs-02a.d	2-Fluorophenol	43.6/100.0	43.6	10.0/110.0	WW
	2-Fluorobiphenyl	36.2/100.0	36.2	10.0/116.0	
	Nitrobenzene-D5	51.4/100.0	51.4	10.0/114.0	
	Phenol-d5	36.2/100.0	36.2	10.0/110.0	
	2,4,6-Tribromophenol	53.9/100.0	53.9	10.0/123.0	
	Terphenyl-D14	53.9/100.0	53.9	10.0/141.0	
				Total Outliers:	0
blk-02b.d	2-Fluorophenol	35.1/100.0	35.1	10.0/110.0	WW
	2-Fluorobiphenyl	29.7/100.0	29.7	10.0/116.0	
	Nitrobenzene-D5	33.9/100.0	33.9	10.0/114.0	
	Phenol-d5	28.5/100.0	28.5	10.0/110.0	
	2,4,6-Tribromophenol	36.3/100.0	36.3	10.0/123.0	
	Terphenyl-D14	39.0/100.0	39.0	10.0/141.0	
				Total Outliers:	0
blk-02bm.d	2-Fluorophenol	40.0/100.0	40.0	10.0/110.0	WW
	2-Fluorobiphenyl	32.2/100.0	32.2	10.0/116.0	
	Nitrobenzene-D5	35.2/100.0	35.2	10.0/114.0	
	Phenol-d5	34.9/100.0	34.9	10.0/110.0	
	2,4,6-Tribromophenol	38.5/100.0	38.5	10.0/123.0	
	Terphenyl-D14	40.6/100.0	40.6	10.0/141.0	
				Total Outliers:	0

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra
Level: LOW

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
blk-02bn.d	2-Fluorophenol	37.4/100.0	37.4	10.0/110.0	WW
	2-Fluorobiphenyl	35.3/100.0	35.3	10.0/116.0	
	Nitrobenzene-D5	37.3/100.0	37.3	10.0/114.0	
	Phenol-d5	30.3/100.0	30.3	10.0/110.0	
	2,4,6-Tribromophenol	40.9/100.0	40.9	10.0/123.0	
	Terphenyl-D14	40.8/100.0	40.8	10.0/141.0	
				Total Outliers:	0
lcs-02b.d	2-Fluorophenol	32.5/100.0	32.5	10.0/110.0	WW
	2-Fluorobiphenyl	27.4/100.0	27.4	10.0/116.0	
	Nitrobenzene-D5	27.9/100.0	27.9	10.0/114.0	
	Phenol-d5	26.3/100.0	26.3	10.0/110.0	
	2,4,6-Tribromophenol	31.7/100.0	31.7	10.0/123.0	
	Terphenyl-D14	36.8/100.0	36.8	10.0/141.0	
				Total Outliers:	0

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

File Name	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
blk-02an.d	blk-02am.d	phenol **	10.12/ 22.67	76.5*	WW
		2-chlorophenol **	17.22/ 36.06	70.7*	
		1,3-dichlorobenzene	2.66/ 6.26	80.7*	
		1,4-dichlorobenzene **	2.79/ 6.58	80.9*	
		n-nitrosodi-n-propylamine**	16.23/ 34.92	73.1*	
		1,2,4-trichlorobenzene **	3.10/ 7.32	81.0*	
		4-chloro-3-methylphenol **	20.58/ 42.36	69.2*	
		acenaphthene **	11.55/ 22.47	64.2*	
		4-nitrophenol **	14.69/ 36.06	84.2*	
		2,4-dinitrotoluene **	15.12/ 32.39	72.7*	
		pentachlorophenol **	24.44/ 49.78	68.3*	
		pyrene **	13.70/ 28.52	70.2*	
		[end of compound list]			
				Total Outliers:	12
blk-02bn.d	blk-02bm.d	phenol **	20.41/ 21.78	6.5	WW
		2-chlorophenol **	31.37/ 29.87	4.9	
		1,3-dichlorobenzene	15.79/ 13.30	17.1	
		1,4-dichlorobenzene **	16.66/ 14.03	17.1	
		n-nitrosodi-n-propylamine**	24.54/ 22.64	8.1	
		1,2,4-trichlorobenzene **	17.45/ 14.33	19.6	
		4-chloro-3-methylphenol **	34.23/ 31.80	7.4	
		acenaphthene **	22.47/ 19.38	14.8	
		4-nitrophenol **	31.24/ 32.29	3.3	
		2,4-dinitrotoluene **	22.99/ 21.14	8.4	
		pentachlorophenol **	45.10/ 44.74	0.8	
		pentachloronitrobenzene	1.42/ 1.36	4.3	
		pyrene **	21.10/ 19.10	10.0	
		[end of compound list]			
				Total Outliers:	0

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

File Name	Sample Name	Target Compound	MS/Samp Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
blk-02am.d	blk-02a.d	2-Chlorophenol	36.06/ 0.00	50.00	72.1	14.0/123.0	WW
		4-Nitrophenol	36.06/ 0.00	50.00	72.1	10.0/110.0	
		Acenaphthene	22.47/ 0.00	50.00	44.9	26.4/118.0	
		4-Chloro-3-methylphenol	42.36/ 0.00	50.00	84.7	20.8/120.7	
		1,4-Dichlorobenzene	6.58/ 0.00	50.00	13.2*	16.8/110.0	
		2,4-Dinitrotoluene	32.39/ 0.00	50.00	64.8	24.0/110.0	
		N-Nitrosodi-n-propylamine	34.92/ 0.00	50.00	69.8	31.3/119.6	
		Pentachlorophenol	49.78/ 0.00	50.00	99.6	10.0/110.0	
		Phenol	22.67/ 0.00	50.00	45.3	10.0/110.0	
		Pyrene	28.52/ 0.00	50.00	57.0	23.0/127.5	
		1,2,4-Trichlorobenzene	7.32/ 0.00	50.00	14.6*	20.5/110.0	
						Total Outliers:	2
blk-02an.d	blk-02a.d	2-Chlorophenol	17.22/ 0.00	50.00	34.4	14.0/123.0	WW
		4-Nitrophenol	14.69/ 0.00	50.00	29.4	10.0/110.0	
		Acenaphthene	11.55/ 0.00	50.00	23.1*	26.4/118.0	
		4-Chloro-3-methylphenol	20.58/ 0.00	50.00	41.2	20.8/120.7	
		1,4-Dichlorobenzene	2.79/ 0.00	50.00	5.6*	16.8/110.0	
		2,4-Dinitrotoluene	15.12/ 0.00	50.00	30.2	24.0/110.0	
		N-Nitrosodi-n-propylamine	16.23/ 0.00	50.00	32.5	31.3/119.6	
		Pentachlorophenol	24.44/ 0.00	50.00	48.9	10.0/110.0	
		Phenol	10.12/ 0.00	50.00	20.2	10.0/110.0	
		Pyrene	13.70/ 0.00	50.00	27.4	23.0/127.5	
		1,2,4-Trichlorobenzene	3.10/ 0.00	50.00	6.2*	20.5/110.0	
						Total Outliers:	3
lcs-02a.d	blk-02a.d	2-Chlorophenol	36.98/ 0.00	50.00	74.0	14.0/123.0	WW
		4-Nitrophenol	35.21/ 0.00	50.00	70.4	10.0/110.0	
		Acenaphthene	28.17/ 0.00	50.00	56.3	26.4/118.0	
		4-Chloro-3-methylphenol	40.66/ 0.00	50.00	81.3	20.8/120.7	
		1,4-Dichlorobenzene	23.76/ 0.00	50.00	47.5	16.8/110.0	
		2,4-Dinitrotoluene	30.11/ 0.00	50.00	60.2	24.0/110.0	
		N-Nitrosodi-n-propylamine	33.22/ 0.00	50.00	66.4	31.3/119.6	
		Pentachlorophenol	49.79/ 0.00	50.00	99.6	10.0/110.0	
		Phenol	22.97/ 0.00	50.00	45.9	10.0/110.0	
		Pyrene	26.81/ 0.00	50.00	53.6	23.0/127.5	
		1,2,4-Trichlorobenzene	24.32/ 0.00	50.00	48.6	20.5/110.0	
						Total Outliers:	0
blk-02bm.d	blk-02b.d	2-Chlorophenol	29.87/ 0.00	50.00	59.7	14.0/123.0	WW
		4-Nitrophenol	32.29/ 0.00	50.00	64.6	10.0/110.0	
		Acenaphthene	19.38/ 0.00	50.00	38.8	26.4/118.0	
		4-Chloro-3-methylphenol	31.80/ 0.00	50.00	63.6	20.8/120.7	
		1,4-Dichlorobenzene	14.03/ 0.00	50.00	28.1	16.8/110.0	
		2,4-Dinitrotoluene	21.14/ 0.00	50.00	42.3	24.0/110.0	
		N-Nitrosodi-n-propylamine	22.64/ 0.00	50.00	45.3	31.3/119.6	
		Pentachlorophenol	44.74/ 0.00	50.00	89.5	10.0/110.0	
		Phenol	21.78/ 0.00	50.00	43.6	10.0/110.0	
		Pyrene	19.10/ 0.00	50.00	38.2	23.0/127.5	
		1,2,4-Trichlorobenzene	14.33/ 0.00	50.00	28.7	20.5/110.0	
						Total Outliers:	0
blk-02bn.d	blk-02b.d	2-Chlorophenol	31.37/ 0.00	50.00	62.7	14.0/123.0	WW
		4-Nitrophenol	31.24/ 0.00	50.00	62.5	10.0/110.0	
		Acenaphthene	22.47/ 0.00	50.00	44.9	26.4/118.0	
		4-Chloro-3-methylphenol	34.23/ 0.00	50.00	68.5	20.8/120.7	
		1,4-Dichlorobenzene	16.66/ 0.00	50.00	33.3	16.8/110.0	
		2,4-Dinitrotoluene	22.99/ 0.00	50.00	46.0	24.0/110.0	

Form 3b: Matrix Spike Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

File Name	Sample Name	Target Compound	MS/Samp	Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
blk-02bn.d		N-Nitrosodi-n-propylamine	24.54/	0.00	50.00	49.1	31.3/119.6	
		Pentachlorophenol	45.10/	0.00	50.00	90.2	10.0/110.0	
		Phenol	20.41/	0.00	50.00	40.8	10.0/110.0	
		Pyrene	21.10/	0.00	50.00	42.2	23.0/127.5	
		1,2,4-Trichlorobenzene	17.45/	0.00	50.00	34.9	20.5/110.0	
							Total Outliers:	0
lcs-02b.d	blk-02b.d	2-Chlorophenol	26.39/	0.00	50.00	52.8	14.0/123.0	WW
		4-Nitrophenol	26.18/	0.00	50.00	52.4	10.0/110.0	
		Acenaphthene	16.53/	0.00	50.00	33.1	26.4/118.0	
		4-Chloro-3-methylphenol	28.53/	0.00	50.00	57.1	20.8/120.7	
		1,4-Dichlorobenzene	11.25/	0.00	50.00	22.5	16.8/110.0	
		2,4-Dinitrotoluene	17.27/	0.00	50.00	34.5	24.0/110.0	
		N-Nitrosodi-n-propylamine	18.80/	0.00	50.00	37.6	31.3/119.6	
		Pentachlorophenol	41.45/	0.00	50.00	82.9	10.0/110.0	
		Phenol	17.37/	0.00	50.00	34.7	10.0/110.0	
		Pyrene	16.17/	0.00	50.00	32.3	23.0/127.5	
		1,2,4-Trichlorobenzene	11.60/	0.00	50.00	23.2	20.5/110.0	
							Total Outliers:	0

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra
Level: LOW

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	*Run Time*	*Target Compound*	*Conc.*	*Matrix*
blk-02a.d	12/02/03 19:00	[end of compound list]	0.00	WW
blk-02b.d	12/02/03 21:49	[end of compound list]	0.00	WW

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
d02a.d	12/02/03 17:35	51	198	30.0	60.0	41.5	90720	PASS
		68	69	0.0	2.0	0.0	0	PASS
		69	198	0.0	100.0	48.7	106408	PASS
		70	69	0.0	2.0	0.6	633	PASS
		127	198	40.0	60.0	45.0	98376	PASS
		197	198	0.0	1.0	0.0	0	PASS
		198	198	100.0	100.0	100.0	218432	PASS
		199	198	5.0	9.0	6.5	14202	PASS
		275	198	10.0	30.0	23.5	51344	PASS
		365	198	1.0	100.0	2.8	6083	PASS
		441	443	0.0	100.0	72.3	19792	PASS
		442	198	40.0	100.0	65.0	142016	PASS
		443	442	17.0	23.0	19.3	27368	PASS

Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples

Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
bx031121.m	1,4-DICHLOROBENZENE-D4	I			5.000	20.00	35.00	50.00	65.00	30.00				
	Pyridine	A	1.695	4.25	1.702	1.668	1.780	1.576	1.688	1.756				
	N-Nitrosodimethylamine	A	1.002	4.82	0.960	0.991	1.059	0.946	0.998	1.060				
	2-Picoline	A	1.757	5.06	1.699	1.708	1.828	1.632	1.849	1.825				
	Methyl methanesulfonate	A	0.995	4.97	0.980	0.955	1.040	0.923	1.029	1.040				
	2-Fluorophenol	A	1.454	4.48	1.451	1.422	1.516	1.358	1.438	1.537				
	Ethyl methanesulfonate	A	1.344	4.62	1.307	1.308	1.408	1.256	1.388	1.397				
	Phenol-d5	A	1.723	7.67	1.833	1.744	1.818	1.576	1.540	1.826				
	Phenol **	A	1.746	9.28	1.886	1.764	1.864	1.576	1.516	1.871				
	Aniline	A	2.170	5.42	2.219	2.146	2.256	1.967	2.136	2.298				
	2-Chlorophenol **	A	1.351	8.02	1.447	1.363	1.435	1.229	1.205	1.429				
	Bis(2-chloroethyl)ether	A	1.446	12.3	1.631	1.514	1.536	1.283	1.170	1.544				
	1,3-Dichlorobenzene	A	1.466	6.84	1.570	1.467	1.536	1.342	1.346	1.535				
	1,4-Dichlorobenzene **	A	1.407	10.4	1.551	1.444	1.483	1.292	1.168	1.505				
	1,2-Dichlorobenzene	A	1.374	8.95	1.513	1.387	1.442	1.265	1.189	1.447				
	Bis(2-chloroisopropyl)ether	A	2.230	15.1	2.709	2.361	2.309	1.888	1.794	2.321				
	Benzyl Alcohol	A	0.927	4.96	0.911	0.908	0.978	0.857	0.934	0.976				
	Acetophenone	A	1.817	5.74	1.927	1.814	1.875	1.657	1.734	1.897				
	o-Cresol	A	1.189	6.53	1.273	1.195	1.239	1.070	1.123	1.234				
	p,m-Cresol	A	1.358	11.1	1.549	1.463	1.378	1.166	1.195	1.398				
	Hexachloroethane	A	0.530	13.3	0.609	0.571	0.546	0.471	0.420	0.563				
	N-Nitrosodi-n-propylamine**	A	0.932	14.4	1.023	0.955	1.031	0.868	0.690	1.023				
	NAPHTHALENE-D8	I			5.000	20.00	35.00	50.00	65.00	30.00				
	Nitrobenzene-d5	A	0.421	6.51	0.440	0.423	0.436	0.384	0.392	0.452				
	Nitrobenzene	A	0.416	10.6	0.466	0.427	0.428	0.365	0.360	0.451				
	N-Nitrosopiperidine	A	0.210	5.68	0.223	0.208	0.218	0.192	0.200	0.217				
	Isophorone	A	0.709	5.96	0.755	0.691	0.730	0.650	0.679	0.750				
	2-Nitrophenol	A	0.242	5.25	0.249	0.244	0.250	0.222	0.231	0.255				
	2,4-Dimethylphenol	A	0.355	7.80	0.385	0.363	0.362	0.318	0.324	0.377				
	Bis(2-chloroethoxy)methane	A	0.496	12.0	0.573	0.513	0.512	0.440	0.412	0.528				
	2,4-Dichlorophenol	A	0.322	9.98	0.355	0.335	0.330	0.292	0.273	0.345				
	1,2,4-Trichlorobenzene **	A	0.335	7.90	0.368	0.339	0.342	0.304	0.302	0.352				
	Naphthalene	A	0.966	15.1	1.184	1.014	0.975	0.838	0.771	1.012				
	4-Chloroaniline	A	0.404	15.5	0.493	0.435	0.407	0.346	0.321	0.422				
	2,6-Dichlorophenol	A	0.300	9.77	0.336	0.310	0.308	0.272	0.258	0.317				
	Hexachlorobutadiene	A	0.162	10.1	0.185	0.166	0.164	0.144	0.142	0.169				
	N-Nitroso-di-n-butylamine	A	0.267	7.02	0.292	0.260	0.275	0.242	0.252	0.280				
	4-Chloro-3-methylphenol **	A	0.313	7.32	0.336	0.322	0.323	0.283	0.286	0.330				
	2-Methylnaphthalene	A	0.520	13.5	0.621	0.545	0.525	0.448	0.432	0.548				
	ACENAPHTHALENE-D10	I			5.000	20.00	35.00	50.00	65.00	30.00				
	1,2,4,5-Tetrachlorobenzene	A	0.534	9.60	0.568	0.556	0.570	0.487	0.453	0.572				
	Hexachlorocyclopentadiene	A	0.138	21.7	0.082	0.130	0.162	0.139	0.157	0.156				
	2,4,6-Trichlorophenol	A	0.393	5.66	0.377	0.399	0.418	0.377	0.367	0.418				
	2,4,5-Trichlorophenol	A	0.424	9.33	0.378	0.446	0.466	0.408	0.383	0.463				
	2-Fluorobiphenyl	A	1.386	9.17	1.515	1.417	1.449	1.269	1.192	1.475				
	1-Chloronaphthalene	A	1.203	12.8	1.357	1.306	1.260	1.072	0.959	1.264				
	2-Chloronaphthalene	A	1.156	10.5	1.231	1.150	1.260	1.072	0.959	1.264				
	2-Nitroaniline	A	0.544	5.16	0.523	0.542	0.578	0.517	0.523	0.578				
	Acenaphthylene	A	1.522	13.3	1.776	1.628	1.580	1.322	1.235	1.591				
	Dimethyl Phthalate	A	1.536	5.25	1.572	1.521	1.617	1.439	1.446	1.619				
	2,6-Dinitrotoluene	A	0.344	8.90	0.365	0.360	0.365	0.309	0.301	0.366				
	3-Nitroaniline	A	0.378	5.55	0.390	0.356	0.403	0.372	0.353	0.395				
	Acenaphthene **	A	1.054	12.7	1.196	1.108	1.104	0.963	0.829	1.123				
	2,4-Dinitrophenol	A	0.206	39.4	0.046	0.198	0.251	0.240	0.260	0.241				
	Dibenzofuran	A	1.634	10.2	1.786	1.687	1.722	1.491	1.367	1.748				
	4-Nitrophenol **	A	0.158	8.18	0.133	0.159	0.169	0.158	0.163	0.166				
	2,4-Dinitrotoluene **	A	0.502	7.12	0.497	0.504	0.545	0.471	0.456	0.540				
	2,3,4,6-Tetrachlorophenol	A	0.266	10.3	0.212	0.268	0.284	0.270	0.276	0.286				
	Fluorene	A	1.300	13.4	1.452	1.374	1.385	1.194	0.994	1.401				
	Diethyl phthalate	A	1.459	11.1	1.594	1.510	1.563	1.354	1.176	1.554				
	4-Chlorophenyl phenyl ether	A	0.576	8.68	0.612	0.595	0.609	0.535	0.493	0.610				
	4-Nitroaniline	A	0.454	8.36	0.434	0.452	0.502	0.439	0.403	0.495				

Form 6: Initial Calibration Data

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
bx031121.m	2,4,6-Tribromophenol	A	0.226	7.60	0.203	0.224	0.247	0.225	0.214	0.245				
	PHENANTHRENE-D10	I			5.000	20.00	35.00	50.00	65.00	30.00				
	4,6-Dinitro-2-methylphenol	A	0.186	17.5	0.122	0.193	0.208	0.190	0.192	0.210				
	N-Nitrosodiphenylamine	A	1.182	22.3	1.556	1.278	1.194	1.036	0.769	1.256				
	1,2-Diphenylhydrazine	A	0.242	15.9	0.281	0.257	0.251	0.224	0.173	0.264				
	Azobenzene	A	0.242	15.9	0.281	0.257	0.251	0.224	0.173	0.264				
	4-Bromophenyl phenyl ether	A	0.207	10.9	0.240	0.215	0.208	0.179	0.184	0.215				
	1,3,5-Trinitrobenzene	A	0.115	9.34	0.104	0.126	0.121	0.104	0.109	0.127				
	Phenacetin	A	0.482	8.76	0.532	0.520	0.472	0.420	0.453	0.496				
	Hexachlorobenzene	A	0.253	11.6	0.293	0.270	0.250	0.230	0.211	0.261				
	4-Aminobiphenyl	A	0.825	13.9	0.922	0.893	0.870	0.743	0.628	0.891				
	Pentachlorophenol **	Q	0.087	22.2	0.055	0.081	0.087	0.098	0.113	0.088	1.00	0.00	0.061	0.03
	Pronamide	A	0.407	8.37	0.446	0.419	0.414	0.374	0.357	0.429				
	Pentachloronitrobenzene	A	0.099	4.09	0.102	0.097	0.101	0.093	0.097	0.104				
	Phenanthrene	A	1.096	12.7	1.292	1.140	1.108	0.988	0.894	1.154				
	Anthracene	A	1.116	12.7	1.317	1.163	1.138	1.000	0.912	1.166				
	di-N-butyl phthalate	A	1.480	14.5	1.774	1.582	1.510	1.298	1.170	1.548				
	Fluoranthene	A	1.115	10.5	1.274	1.165	1.133	0.991	0.964	1.163				
	Terphenyl-d14	A	0.731	12.4	0.867	0.755	0.738	0.656	0.607	0.763				
	CHRYSENE-D12	I			5.000	20.00	35.00	50.00	65.00	30.00				
	Benzidine	A	0.792	4.79	0.810	0.756	0.843	0.762	0.757	0.821				
	Pyrene **	A	1.542	5.28	1.527	1.465	1.639	1.471	1.503	1.647				
	p-Dimethylaminoazobenzene	A	0.327	6.25	0.304	0.309	0.348	0.319	0.326	0.354				
	Butyl benzyl phthalate	A	0.939	6.31	0.906	0.911	1.019	0.889	0.899	1.011				
	TCDD	A												
	Benzo(a)anthracene	A	1.392	5.19	1.354	1.307	1.487	1.351	1.381	1.473				
	3,3'-Dichlorobenzidine	A	0.455	5.66	0.473	0.441	0.486	0.442	0.417	0.470				
	Chrysene	A	1.278	7.09	1.305	1.230	1.380	1.230	1.151	1.374				
	Bis(2-ethylhexyl)phthalate	A	1.233	7.99	1.280	1.224	1.315	1.161	1.079	1.336				
	Di-n-octyl phthalate	A	2.355	6.88	2.422	2.381	2.478	2.207	2.113	2.530				
	PERYLENE-D12	I			5.000	20.00	35.00	50.00	65.00	30.00				
	Benzo(b)fluoranthene	A	1.333	12.5	1.558	1.433	1.343	1.187	1.100	1.377				
	7,12-Dimethylbenz(a)anthracene	A	0.562	3.61	0.578	0.551	0.577	0.527	0.560	0.577				
	Benzo(k)fluoranthene	A	1.290	10.1	1.455	1.271	1.346	1.188	1.100	1.380				
	Benzo(a)pyrene	A	1.295	7.08	1.410	1.310	1.331	1.196	1.174	1.348				
	3-Methylcholanthrene	A	0.682	6.38	0.718	0.680	0.712	0.629	0.630	0.724				
	Dibenz(a,j)acridine	A	1.042	8.76	1.043	1.048	1.134	0.975	0.907	1.144				
	Indeno(1,2,3-cd)pyrene	A	1.373	12.2	1.183	1.434	1.545	1.337	1.183	1.554				
	Dibenzo(a,h)anthracene	A	1.143	12.4	1.254	1.196	1.230	1.034	0.904	1.240				
	Benzo(ghi)perylene	A	1.188	10.3	1.206	1.187	1.312	1.110	0.997	1.315				

Calibration Date: 11/21/03

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)

Calibration (1): bx031121.M (Mean %RSD: 9.73)

Form 7a: System Performance Compounds Check

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra
Initial Calibration Date: (see Form 6)

Analytical Batch: m031202.1
Heated Purge: N/A

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc02a.d	12/02/03 18:17	4-Nitrophenol	0.168	0.05
		2,4-Dinitrophenol	0.219	0.05
		Hexachlorocyclopentadiene	0.133	0.05
		N-Nitrosodi-n-propylamine	0.916	0.05

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra
Initial Calibration Date: (see Form 6)

Analytical Batch: m031202.1
Heated Purge: N/A
Concentration Units: mg/L (in extract)

Filename	Run Time	CCC Compound	Found/Spiked Concentration	CCC %D/UCL
spcc02a.d	12/02/03 18:17	2-Nitrophenol	46.2/ 50.0	7.5/ 20.0
		Acenaphthene	44.4/ 50.0	11.2/ 20.0
		Benzo(a)pyrene	46.5/ 50.0	7.0/ 20.0
		4-Chloro-3-methylphenol	48.6/ 50.0	2.7/ 20.0
		1,4-Dichlorobenzene	46.5/ 50.0	7.0/ 20.0
		2,4-Dichlorophenol	45.5/ 50.0	9.0/ 20.0
		Di-n-octyl phthalate	47.4/ 50.0	5.3/ 20.0
		Fluoranthene	45.1/ 50.0	9.9/ 20.0
		Hexachlorobutadiene	46.5/ 50.0	6.9/ 20.0
		N-Nitrosodiphenylamine	42.3/ 50.0	15.3/ 20.0
		Pentachlorophenol	50.1/ 50.0	0.3/ 20.0
		Phenol	46.1/ 50.0	7.9/ 20.0
		2,4,6-Trichlorophenol	46.7/ 50.0	6.7/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
spcc02a.d	12/02/03 18:17	1,4-Dichlorobenzene-D4	938396/ 9.77	469198- 1876792	9.27-10.27
		Naphthalene-D8	3215919/12.76	1607960- 6431838	12.26-13.26
		Acenaphthalene-D10	1675912/16.94	837956- 3351824	16.44-17.44
		Phenanthrene-D10	2781793/20.50	1390897- 5563586	20.00-21.00
		Chrysene-D12	1796062/26.82	898031- 3592124	26.32-27.32
		Perylene-D12	2001996/29.97	1000998- 4003992	29.47-30.47
blk-02a.d	12/02/03 19:00	1,4-Dichlorobenzene-D4	964313/ 9.78	Ratio: 1.028	Diff.: 0.01
		Naphthalene-D8	3329781/12.75	Ratio: 1.035	Diff.: -0.01
		Acenaphthalene-D10	1857608/16.93	Ratio: 1.108	Diff.: -0.01
		Phenanthrene-D10	3020615/20.48	Ratio: 1.086	Diff.: -0.02
		Chrysene-D12	2446579/26.81	Ratio: 1.362	Diff.: -0.01
		Perylene-D12	2059665/29.95	Ratio: 1.029	Diff.: -0.02
blk-02am.d	12/02/03 19:43	1,4-Dichlorobenzene-D4	985911/ 9.78	Ratio: 1.051	Diff.: 0.01
		Naphthalene-D8	3466552/12.75	Ratio: 1.078	Diff.: -0.01
		Acenaphthalene-D10	1908553/16.94	Ratio: 1.139	Diff.: 0.00
		Phenanthrene-D10	3124550/20.49	Ratio: 1.123	Diff.: -0.01
		Chrysene-D12	2504338/26.80	Ratio: 1.394	Diff.: -0.02
		Perylene-D12	2094547/29.95	Ratio: 1.046	Diff.: -0.02
blk-02an.d	12/02/03 20:25	1,4-Dichlorobenzene-D4	980869/ 9.78	Ratio: 1.045	Diff.: 0.01
		Naphthalene-D8	3385513/12.75	Ratio: 1.053	Diff.: -0.01
		Acenaphthalene-D10	1871349/16.93	Ratio: 1.117	Diff.: -0.01
		Phenanthrene-D10	3046908/20.48	Ratio: 1.095	Diff.: -0.02
		Chrysene-D12	2501511/26.80	Ratio: 1.393	Diff.: -0.02
		Perylene-D12	2095985/29.95	Ratio: 1.047	Diff.: -0.02
lcs-02a.d	12/02/03 21:07	1,4-Dichlorobenzene-D4	981565/ 9.79	Ratio: 1.046	Diff.: 0.02
		Naphthalene-D8	3424410/12.76	Ratio: 1.065	Diff.: 0.00
		Acenaphthalene-D10	1880600/16.93	Ratio: 1.122	Diff.: -0.01
		Phenanthrene-D10	3047038/20.48	Ratio: 1.095	Diff.: -0.02
		Chrysene-D12	2479025/26.80	Ratio: 1.380	Diff.: -0.02
		Perylene-D12	2039742/29.95	Ratio: 1.019	Diff.: -0.02
blk-02b.d	12/02/03 21:49	1,4-Dichlorobenzene-D4	987780/ 9.77	Ratio: 1.053	Diff.: 0.00
		Naphthalene-D8	3415373/12.75	Ratio: 1.062	Diff.: -0.01
		Acenaphthalene-D10	1894243/16.93	Ratio: 1.130	Diff.: -0.01
		Phenanthrene-D10	3015162/20.48	Ratio: 1.084	Diff.: -0.02
		Chrysene-D12	2434749/26.80	Ratio: 1.356	Diff.: -0.02
		Perylene-D12	2045888/29.95	Ratio: 1.022	Diff.: -0.02
blk-02bm.d	12/02/03 22:31	1,4-Dichlorobenzene-D4	1011876/ 9.78	Ratio: 1.078	Diff.: 0.01
		Naphthalene-D8	3504562/12.75	Ratio: 1.090	Diff.: -0.01
		Acenaphthalene-D10	1936079/16.94	Ratio: 1.155	Diff.: 0.00
		Phenanthrene-D10	3109075/20.48	Ratio: 1.118	Diff.: -0.02
		Chrysene-D12	2534805/26.80	Ratio: 1.411	Diff.: -0.02
		Perylene-D12	2119594/29.95	Ratio: 1.059	Diff.: -0.02
blk-02bn.d	12/02/03 23:13	1,4-Dichlorobenzene-D4	1000742/ 9.77	Ratio: 1.066	Diff.: 0.00
		Naphthalene-D8	3464915/12.75	Ratio: 1.077	Diff.: -0.01
		Acenaphthalene-D10	1870102/16.94	Ratio: 1.116	Diff.: 0.00
		Phenanthrene-D10	3078984/20.48	Ratio: 1.107	Diff.: -0.02
		Chrysene-D12	2478431/26.81	Ratio: 1.380	Diff.: -0.01
		Perylene-D12	2062831/29.95	Ratio: 1.030	Diff.: -0.02
lcs-02b.d	12/02/03 23:55	1,4-Dichlorobenzene-D4	984965/ 9.77	Ratio: 1.050	Diff.: 0.00
		Naphthalene-D8	3418852/12.75	Ratio: 1.063	Diff.: -0.01
		Acenaphthalene-D10	1907471/16.94	Ratio: 1.138	Diff.: 0.00
		Phenanthrene-D10	3039533/20.48	Ratio: 1.093	Diff.: -0.02
		Chrysene-D12	2512723/26.81	Ratio: 1.399	Diff.: -0.01
		Perylene-D12	2079105/29.95	Ratio: 1.039	Diff.: -0.02

Form 8: Internal Standard Area and Retention Time Summary

GC Column: DB-5/L:30m/D:0.25mm
Instrument ID: svol.02.Mishra

Analytical Batch: m031202.1
Heated Purge: N/A

Filename	*Run Time*	*ISD Compound*	*Area/RT*	*Area Range*	*RT Range*

KEY:

[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:

Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

Merit Laboratories, Inc.

Quality Control Cover Page

Report ID: S15109.01(01)
Report Date: 11/25/2003
Project: Gm-Linden Rd.
Lab Sample ID(s): S15109.01-S15109.13

Report to:
Attention: Mr. Babusukumar
Weston Solutions, Inc.
750 East Bunker Court Ste 500
Vernon Hills, IL 60061

Sample ID	Sample Tag	Collected	Matrix	Analysis Departments
S15109.01	MW-01S	11/06/2003 14:35	Groundwater	Extraction / Prep., Metals, Organics
S15109.02	MW-03S	11/06/2003 16:05	Groundwater	Extraction / Prep., Metals, Organics
S15109.03	MW-05S	11/06/2003 14:30	Groundwater	Extraction / Prep., Metals, Organics
S15109.04	MW-05SDup	11/06/2003 14:30	Groundwater	Extraction / Prep., Metals, Organics
S15109.05	MW-06S	11/06/2003 15:15	Groundwater	Extraction / Prep., Metals, Organics
S15109.06	MW-10S	11/06/2003 13:00	Groundwater	Extraction / Prep., Metals, Organics
S15109.07	MW-11S	11/06/2003 13:35	Groundwater	Extraction / Prep., Metals, Organics
S15109.08	MW-12S	11/06/2003 12:50	Groundwater	Extraction / Prep., Metals, Organics
S15109.09	MW-13S	11/06/2003 11:45	Groundwater	Extraction / Prep., Metals, Organics
S15109.10	GP-13 7-12	11/06/2003 09:50	Groundwater	Organics
S15109.11	GP-13 7-12 Dup	11/06/2003 09:50	Groundwater	Organics
S15109.12	Trip Blank	11/06/2003 :	Groundwater	Organics
S15109.13	Field Blank	11/06/2003 :	Groundwater	Organics

This QC package, to the best of my knowledge, is in compliance with all technical and administrative requirements.
If you have any questions, please do not hesitate to contact me at 517-332-0167 (ext. 14) or email me at mmurshak@fec-labs.com.

Sincerely,

Maya Murshak
Chemical Engineer / QA Officer

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3400(B)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: b031111.1

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Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
b031111.01r	sblk-r.01	11/11 10:19 AM	SBLK-R.01	WW	Bl		
b031111.02r	sc1660.01	11/11 10:35 AM	SC1660.01 0.5ppm	WW	CV		
b031111.03r	slcs-w.01	11/11 11:26 AM	SLCS-W.01 w/1 ID:031110w61	WW	MS		
b031111.04r	slcs-w.02	11/11 11:42 AM	SLCS-W.02 w/1 ID:031110w61	WW	MS		
b031111.05r	slcs-c.01	11/11 11:59 AM	SLCS-C.01 0.5ppm	WW			
b031111.06r	sblk-w.01	11/11 12:15 PM	SBLK-W.01 w/1 ID:031110w61	WW	Bl		
b031111.07r	s15090.02	11/11 12:31 PM	S15090.02 990ml w/1 ID:031110w61	WW			
b031111.08r	s15074.01	11/11 12:48 PM	S15074.01 910ml w/1 ID:031110w61	WW			
b031111.09r	s15075.01	11/11 01:04 PM	S15075.01 930ml w/1 ID:031110w61	WW			
b031111.10r	s15091.01	11/11 02:56 PM	S15091.01 910ml w/1 ID:031110w61	WW			
b031111.11r	s15098.01	11/11 03:12 PM	S15098.01 990ml w/1 ID:031110w61	WW			
b031111.12r	s15098.02	11/11 03:29 PM	S15098.02 910ml w/1 ID:031110w61	WW			
b031111.13r	s15028.03	11/11 03:56 PM	S15028.03 C 600ml w/1 ID:031105w60	WW			
b031111.15r	s15092.01	11/11 04:29 PM	S15092.01 940ml w/1 ID:031110w61	WW			
b031111.16r	s15098.03	11/11 04:45 PM	S15098.03 990ml w/1 ID:031110w61	WW			
b031111.17r	ss1660.01	11/11 05:01 PM	SS1660.01 0.1ppm	WW			
b031111.18r	s15098.04	11/11 05:17 PM	S15098.04 990ml w/1 ID:031110w61	WW			
b031111.19r	s15098.05	11/11 05:34 PM	S15098.05 1L w/1 ID:031110w61	WW			
b031111.20r	s15098.06	11/11 05:50 PM	S15098.06 1L w/1 ID:031110w61	WW			
b031111.21r	s15098.07	11/11 06:06 PM	S15098.07 1L w/1 ID:031110w61	WW			
b031111.22r	s15098.08	11/11 06:23 PM	S15098.08 1L w/1 ID:031110w61	WW			
b031111.23r	s15108.01	11/11 06:39 PM	S15108.01 770ml w/1 ID:031110w61	WW			
b031111.24r	s15109.01	11/11 06:55 PM	S15109.01 990ml w/1 ID:031110w61	WW			
b031111.25r	s15109.02	11/11 07:12 PM	S15109.02 1L w/1 ID:031110w61	WW			
b031111.26r	s15109.03	11/11 07:28 PM	S15109.03 980ml w/1 ID:031110w61	WW			
b031111.28r	sc1660.02	11/11 08:01 PM	SC1660.02 0.5ppm	WW	CV		

Matrix (Mtx) Summary

Water Samples:	18	Soil Samples:	0
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	2	Soil Blanks:	0

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3400(B)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: b031111.1

Filename	LIMS ID	SSD Compound	Found/Spiked	%Rec.	LCL/UCL	Matrix
b031111.01r	sblk-r.01	TCX	11.35/10.00	113.5	49.0/134.0	WW
		DCBP	11.13/10.00	111.3	27.0/100.0	
b031111.02r	sc1660.01	TCX	5.78/10.00	n/a	49.0/134.0	WW
		DCBP	5.10/10.00	n/a	27.0/100.0	
b031111.03r	slcs-w.01	TCX	10.67/10.00	106.7	49.0/134.0	WW
		DCBP	10.40/10.00	104.0	27.0/100.0	
b031111.04r	slcs-w.02	TCX	9.33/10.00	93.3	49.0/134.0	WW
		DCBP	8.83/10.00	88.3	27.0/100.0	
b031111.05r	slcs-c.01	TCX	9.94/10.00	99.4	49.0/134.0	WW
		DCBP	9.94/10.00	99.4	27.0/100.0	
b031111.06r	sblk-w.01	TCX	10.66/10.00	106.6	49.0/134.0	WW
		DCBP	10.74/10.00	107.4	27.0/100.0	
b031111.07r	s15090.02	TCX	8.87/10.00	88.7	49.0/134.0	WW
		DCBP	8.60/10.00	86.0	27.0/100.0	
b031111.08r	s15074.01	TCX	9.79/10.00	97.9	49.0/134.0	WW
		DCBP	5.84/10.00	58.4	27.0/100.0	
b031111.09r	s15075.01	TCX	8.26/10.00	82.6	49.0/134.0	WW
		DCBP	7.33/10.00	73.3	27.0/100.0	
b031111.10r	s15091.01	TCX	12.83/10.00	128.3	49.0/134.0	WW
		DCBP	5.96/10.00	59.6	27.0/100.0	
b031111.11r	s15098.01	TCX	7.96/10.00	79.6	49.0/134.0	WW
		DCBP	8.12/10.00	81.2	27.0/100.0	
b031111.12r	s15098.02	TCX	8.29/10.00	82.9	49.0/134.0	WW
		DCBP	9.31/10.00	93.1	27.0/100.0	
b031111.13r	s15028.03	TCX	10.86/10.00	108.6	49.0/134.0	WW
		DCBP	10.72/10.00	107.2	27.0/100.0	
b031111.15r	s15092.01	TCX	8.63/10.00	86.3	49.0/134.0	WW
		DCBP	9.64/10.00	96.4	27.0/100.0	
b031111.16r	s15098.03	TCX	7.58/10.00	75.8	49.0/134.0	WW
		DCBP	7.98/10.00	79.8	27.0/100.0	
b031111.17r	ss1660.01	TCX	1.08/10.00	n/a	49.0/134.0	WW
		DCBP	1.33/10.00	n/a	27.0/100.0	
b031111.18r	s15098.04	TCX	7.39/10.00	73.9	49.0/134.0	WW
		DCBP	5.22/10.00	52.2	27.0/100.0	
b031111.19r	s15098.05	TCX	7.34/10.00	73.4	49.0/134.0	WW
		DCBP	8.26/10.00	82.6	27.0/100.0	
b031111.20r	s15098.06	TCX	8.26/10.00	82.6	49.0/134.0	WW
		DCBP	7.61/10.00	76.1	27.0/100.0	
b031111.21r	s15098.07	TCX	8.23/10.00	82.3	49.0/134.0	WW
		DCBP	6.85/10.00	68.5	27.0/100.0	
b031111.22r	s15098.08	TCX	7.76/10.00	77.6	49.0/134.0	WW
		DCBP	5.65/10.00	56.5	27.0/100.0	
b031111.23r	s15108.01	TCX	7.45/10.00	74.5	49.0/134.0	WW
		DCBP	5.76/10.00	57.6	27.0/100.0	
b031111.24r	s15109.01	TCX	8.33/10.00	83.3	49.0/134.0	WW
		DCBP	6.51/10.00	65.1	27.0/100.0	
b031111.25r	s15109.02	TCX	8.47/10.00	84.7	49.0/134.0	WW
		DCBP	5.72/10.00	57.2	27.0/100.0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3400(B)/DB-5 Analytical Batch: b031111.1
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*SSD Compound*	*Found/Spiked*	*%Rec.*	*LCL/UCL*	*Matrix*
b031111.26r	s15109.03	TCX	8.50/10.00	85.0	49.0/134.0	WW
		DCBP	6.35/10.00	63.5	27.0/100.0	
b031111.28r	sc1660.02	TCX	5.99/10.00	n/a	49.0/134.0	WW
		DCBP	5.03/10.00	n/a	27.0/100.0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3400(B)/DB-5 Analytical Batch: b031111.1
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
b031111.03r	slcs-w.01	**b031111.06r**	1016-1	0.447/ 0.000	89.4		WW
			1016-2	0.449/ 0.000	89.8		
			1016-3	0.452/ 0.000	90.4		
			1016-4	0.472/ 0.000	94.4		
			1016-5	0.524/ 0.004	104.0		
			1260-1	0.436/ 0.000	87.2		
			1260-2	0.442/ 0.000	88.4		
			1260-3	0.491/ 0.000	98.2		
			1260-4	0.418/ 0.000	83.6		
			1260-5	0.387/ 0.020	73.4		
				Average Recovery	**89.9**	59.0/116.0	
b031111.04r	slcs-w.02	**b031111.06r**	1016-1	0.445/ 0.000	89.0		WW
			1016-2	0.448/ 0.000	89.6		
			1016-3	0.458/ 0.000	91.6		
			1016-4	0.475/ 0.000	95.0		
			1016-5	0.497/ 0.004	98.6		
			1260-1	0.431/ 0.000	86.2		
			1260-2	0.439/ 0.000	87.8		
			1260-3	0.491/ 0.000	98.2		
			1260-4	0.392/ 0.000	78.4		
			1260-5	0.351/ 0.020	66.2		
				Average Recovery	**88.1**	59.0/116.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

Instrument ID: Varian/3400(B)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: b031111.1

Filename	*LIMS ID*	*Run Time*	*Target Compound*	*Conc.*	*Matrix*
b031111.01r	sblk-r.01	11/11 10:19 AM	1016-1	0.032	WW
			1016-3	0.004	
			1260-2	0.063	
			1260-4	0.010	
			1260-5	0.023	
			[end of list]	0.000	
b031111.06r	sblk-w.01	11/11 12:15 PM	1016-3	0.007	WW
			1016-4	0.004	
			1260-1	0.010	
			1260-2	0.017	
			1260-4	0.017	
			1260-5	0.020	
			[end of list]	0.000	

Form 6: Initial Calibration Data

Instrument ID: Varian/3400(B)/DB-5 Analytical Batch: b031111.1
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Filename	Compound	Fit	RT-<CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
b66030805.cal	TCX	A	1.06	1.13	1.20	2.00	4.00	6.00	8.00	10.00			0.058
						0.06	0.06	0.06	0.06	0.06			
	1016-1	A	1.64	1.71	1.78	0.20	0.40	0.60	0.80	1.00			1.933
				9.93		2.11	2.15	1.89	1.75	1.75			
	1016-2	A	1.83	1.90	1.97	0.20	0.40	0.60	0.80	1.00			1.401
				7.39		1.44	1.56	1.40	1.31	1.31			
	1016-3	A	2.16	2.23	2.30	0.20	0.40	0.60	0.80	1.00			4.151
				3.30		4.27	4.31	4.10	3.98	4.09			
	1016-4	A	2.29	2.36	2.43	0.20	0.40	0.60	0.80	1.00			1.804
				4.97		1.90	1.88	1.82	1.71	1.71			
	1016-5	A	2.40	2.47	2.54	0.20	0.40	0.60	0.80	1.00			1.359
				4.87		1.28	1.40	1.45	1.35	1.32			
	1260-1	A	6.14	6.21	6.28	0.20	0.40	0.60	0.80	1.00			5.482
				3.59		5.64	5.73	5.33	5.28	5.44			
	1260-2	A	6.79	6.86	6.93	0.20	0.40	0.60	0.80	1.00			5.666
				6.06		6.12	5.95	5.46	5.36	5.45			
	1260-3	A	7.24	7.31	7.38	0.20	0.40	0.60	0.80	1.00			3.348
				3.44		3.31	3.53	3.26	3.26	3.38			
	1260-4	A	8.58	8.65	8.72	0.20	0.40	0.60	0.80	1.00			10.212
				6.00		9.16	10.67	10.51	10.51	10.21			
	1260-5	A	9.33	9.40	9.47	0.20	0.40	0.60	0.80	1.00			4.626
				7.25		5.08	4.89	4.41	4.33	4.42			
	DCBP	A	13.0	13.1	13.2	2.00	4.00	6.00	8.00	10.00			0.066
						0.07	0.07	0.07	0.07	0.07			

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): b66030805.cal / mean %rsd: 4.7

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3400(B)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: b031111.1

Filename	*LIMS ID*	*Run Time*	*CVM Component*	*Δ RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
b031111.02r	sc1660.01	11/11 10:35 AM	1016-1	0.03/0.07	0.533/0.500	6.6
			1016-2	0.03/0.07	0.534/0.500	6.8
			1016-3	0.04/0.07	0.552/0.500	10.4
			1016-4	0.04/0.07	0.554/0.500	10.8
			1016-5	0.04/0.07	0.585/0.500	17.0
			1260-1	0.00/0.06	0.521/0.500	4.2
			1260-2	0.00/0.07	0.523/0.500	4.6
			1260-3	0.00/0.06	0.580/0.500	16.0
			1260-4	0.00/0.06	0.493/0.500	1.4
			1260-5	0.00/0.07	0.405/0.500	19.0
					Average	**5.6/ 15.0**
b031111.28r	sc1660.02	11/11 08:01 PM	1016-1	-.01/0.07	0.547/0.500	9.4
			1016-2	0.00/0.07	0.545/0.500	9.0
			1016-3	0.00/0.07	0.568/0.500	13.6
			1016-4	0.00/0.07	0.576/0.500	15.2
			1016-5	-.01/0.07	0.596/0.500	19.2
			1260-1	-.01/0.07	0.453/0.500	9.4
			1260-2	-.01/0.07	0.483/0.500	3.4
			1260-3	-.01/0.07	0.481/0.500	3.8
			1260-4	-.01/0.07	0.433/0.500	13.4
			1260-5	-.01/0.07	0.397/0.500	20.6
					Average	**1.6/ 15.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3400(B)/DB-608
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Analytical Batch: b031112.2

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Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	*LIMS ID*	*Run Time*	*Sample Comments*	*Mtx*	*QC Type*	*Notes*	*CA*
b031112b.01	sblk-r.01	11/12/03 10:56	SBLK-R.01	WW	Bl		
b031112b.02	sc1660.01	11/12/03 11:12	SC1660.01 0.5ppm	WW	CV		
b031112b.03	slcs-w.01	11/12/03 11:33	SLCS-W.01 w/1 ID:031112w62	WW	MS		
b031112b.04	slcs-w.02	11/12/03 11:49	SLCS-W.02 w/1 ID:031112w62	WW	MS		
b031112b.06	sblk-w.01	11/12/03 12:22	SBLK-W.01 w/1 ID:031112w62	WW	Bl		
b031112b.07	s15143.01	11/12/03 12:38	S15143.01 980ml w/1 ID:031112w62	WW			
b031112b.08	s15143.02	11/12/03 12:54	S15143.02 960ml w/1 ID:031112w62	WW			
b031112b.09	s15143.03	11/12/03 13:10	S15143.03 970ml w/1 ID:031112w62	WW			
b031112b.10	s15143.02	11/12/03 13:27	S15143.02D 950ml w/1 ID:031112w62	WW	Dp		
b031112b.11	s15108.02	11/12/03 14:10	S15108.02 720ml w/1 ID:031110w61	WW			
b031112b.12	s15109.04	11/12/03 14:26	S15109.04 950ml w/1 ID:031110w61	WW			
b031112b.13	s15109.05	11/12/03 14:43	S15109.05 890ml w/1 ID:031110w61	WW			
b031112b.14	s15109.06	11/12/03 14:59	S15109.06 980ml w/1 ID:031110w62	WW			
b031112b.15	s15109.07	11/12/03 15:15	S15109.07 930ml w/1 ID:031110w62	WW			
b031112b.16	s15109.08	11/12/03 15:32	S15109.08 980ml w/1 ID:031110w62	WW			
b031112b.18	s15143.05	11/12/03 16:04	S15143.05 950ml w/1 ID:031110w62	WW			
b031112b.19	s15143.06	11/12/03 16:22	S15143.06 930ml w/1 ID:031110w62	WW			
b031112b.21	sc1660.02	11/12/03 16:54	SC1660.02 0.5ppm	WW	CV		

Matrix (Mtx) Summary

Water Samples:	11	Soil Samples:	0
Water Duplicates:	1	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	2	Soil Blanks:	0

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 0
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3400(B)/DB-608 Analytical Batch: b031112.2
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	LIMS ID	SSD Compound	Found/Spiked	%Rec.	LCL/UCL	Matrix
b031112b.01	sblk-r.01	TCX	9.20/10.00	92.0	49.0/134.0	WW
b031112b.02	sc1660.01	TCX	3.95/10.00	n/a	49.0/134.0	WW
b031112b.03	slcs-w.01	TCX	7.89/10.00	78.9	49.0/134.0	WW
b031112b.04	slcs-w.02	TCX	8.55/10.00	85.5	49.0/134.0	WW
b031112b.06	sblk-w.01	TCX	9.14/10.00	91.4	49.0/134.0	WW
b031112b.07	s15143.01	TCX	7.70/10.00	77.0	49.0/134.0	WW
b031112b.08	s15143.02	TCX	7.29/10.00	72.9	49.0/134.0	WW
b031112b.09	s15143.03	TCX	7.76/10.00	77.6	49.0/134.0	WW
b031112b.10	s15143.02	TCX	8.22/10.00	82.2	49.0/134.0	WW
b031112b.11	s15108.02	TCX	11.69/10.00	116.9	49.0/134.0	WW
b031112b.12	s15109.04	TCX	8.37/10.00	83.7	49.0/134.0	WW
b031112b.13	s15109.05	TCX	8.59/10.00	85.9	49.0/134.0	WW
b031112b.14	s15109.06	TCX	6.91/10.00	69.1	49.0/134.0	WW
b031112b.15	s15109.07	TCX	7.97/10.00	79.7	49.0/134.0	WW
b031112b.16	s15109.08	TCX	6.66/10.00	66.6	49.0/134.0	WW
b031112b.18	s15143.05	TCX	7.00/10.00	70.0	49.0/134.0	WW
b031112b.19	s15143.06	TCX	6.55/10.00	65.5	49.0/134.0	WW
b031112b.21	sc1660.02	TCX	3.50/10.00	n/a	49.0/134.0	WW

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

Instrument ID: Varian/3400(B)/DB-608 Analytical Batch: b031112.2
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name	LIMS ID	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
b031112b.10	s15143.02	**b031112b.08**	1016-1	0.020/ 0.040	66.7	WW
			1016-2	0.035/ 0.046	27.2	
			1016-4	0.019/ 0.004	130.4	
			[end of list]			

Form 3b: Matrix Spike Summary

Instrument ID: Varian/3400(B)/DB-608 Analytical Batch: b031112.2
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

File Name	LIMS ID	Sample Name	Target Compound	MS/Samp Conc.	%Rec	LCL/UCL	Mat.
b031112b.03	slcs-w.01	**b031112b.06**	1016-1	0.456/ 0.000	91.2		WW
			1016-2	0.428/ 0.000	85.6		
			1016-3	0.472/ 0.002	94.0		
			1016-4	0.444/ 0.000	88.8		
			1016-5	0.456/ 0.016	88.0		
			1260-1	0.404/ 0.010	78.8		
			1260-2	0.398/ 0.008	78.0		
			1260-3	0.377/ 0.000	75.4		
			1260-4	0.362/ 0.015	69.4		
			1260-5	0.444/ 0.025	83.8		
				Average Recovery	**83.3**	59.0/116.0	
b031112b.04	slcs-w.02	**b031112b.06**	1016-1	0.500/ 0.000	100.0		WW
			1016-2	0.492/ 0.000	98.4		
			1016-3	0.494/ 0.002	98.4		
			1016-4	0.500/ 0.000	100.0		
			1016-5	0.515/ 0.016	99.8		
			1260-1	0.463/ 0.010	90.6		
			1260-2	0.436/ 0.008	85.6		
			1260-3	0.413/ 0.000	82.6		
			1260-4	0.374/ 0.015	71.8		
			1260-5	0.476/ 0.025	90.2		
				Average Recovery	**91.7**	59.0/116.0	

NOTES

*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

Instrument ID: Varian/3400(B)/DB-608 Analytical Batch: b031112.2
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*Run Time*	*Target Compound*	*Conc.*	*Matrix*
b031112b.01	sblk-r.01	11/12/03 10:56	1016-3	0.006	WW
			1260-4	0.007	
			1260-5	0.009	
			[end of list]	0.000	
b031112b.06	sblk-w.01	11/12/03 12:22	1016-3	0.002	WW
			1016-5	0.016	
			1260-1	0.010	
			1260-2	0.008	
			1260-4	0.015	
			1260-5	0.025	
			[end of list]	0.000	

Form 6: Initial Calibration Data

Instrument ID: Varian/3400(B)/DB-608 Analytical Batch: b031112.2
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	Compound	Fit	RT- <CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
bb66030805.ca	TCX	A	1.16	1.23	1.30	2.00	4.00	6.00	8.00	10.00			0.070
				5.99		0.06	0.08	0.07	0.07	0.07			
	1016-1	A	1.78	1.85	1.92	0.20	0.40	0.60	0.80	1.00			0.804
				7.41		0.72	0.89	0.82	0.79	0.81			
	1016-2	A	2.37	2.44	2.51	0.20	0.40	0.60	0.80	1.00			1.583
				6.44		1.52	1.76	1.60	1.53	1.52			
	1016-3	A	2.97	3.04	3.11	0.20	0.40	0.60	0.80	1.00			3.905
				8.55		3.97	4.42	3.93	3.66	3.56			
	1016-4	A	3.27	3.34	3.41	0.20	0.40	0.60	0.80	1.00			1.511
				4.89		1.42	1.63	1.52	1.48	1.51			
	1016-5	A	3.52	3.59	3.66	0.20	0.40	0.60	0.80	1.00			1.187
				5.81		1.09	1.28	1.20	1.17	1.20			
	1260-1	A	7.39	7.46	7.53	0.20	0.40	0.60	0.80	1.00			6.783
				6.95		7.09	7.46	6.41	6.51	6.44			
	1260-2	A	8.55	8.62	8.69	0.20	0.40	0.60	0.80	1.00			5.034
				5.85		4.92	5.54	5.04	4.83	4.84			
	1260-3	A	8.67	8.74	8.81	0.20	0.40	0.60	0.80	1.00			4.858
				4.99		4.68	5.26	4.90	4.74	4.71			
	1260-4	A	10.1	10.2	10.2	0.20	0.40	0.60	0.80	1.00			11.516
				5.33		11.50	12.46	11.65	11.12	10.86			
	1260-5	A	11.4	11.5	11.5	0.20	0.40	0.60	0.80	1.00			4.720
				5.68		4.29	4.94	4.95	4.72	4.72			

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): bb66030805.cal / mean %rsd: 6.2

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3400(B)/DB-608 Analytical Batch: b031112.2
GC Column: DB-608/L:20m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*Run Time*	*CVM Component*	*? RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
b031112b.02	sc1660.01	11/12/03 11:12	1016-1	0.00/0.07	0.502/0.500	0.4
			1016-2	0.00/0.07	0.506/0.500	1.2
			1016-3	0.00/0.07	0.515/0.500	3.0
			1016-4	0.00/0.07	0.492/0.500	1.6
			1016-5	0.00/0.07	0.494/0.500	1.2
			1260-1	0.00/0.07	0.427/0.500	14.6
			1260-2	0.00/0.07	0.390/0.500	22.0
			1260-3	0.00/0.07	0.376/0.500	24.8
			1260-4	0.00/0.07	0.440/0.500	12.0
			1260-5	0.00/0.07	0.423/0.500	15.4
					Average	**8.7 / 15.0**
b031112b.21	sc1660.02	11/12/03 16:54	1016-1	0.00/0.03	0.428/0.500	14.4
			1016-2	0.04/0.07	0.448/0.500	10.4
			1016-3	0.05/0.07	0.449/0.500	10.2
			1016-4	0.05/0.07	0.413/0.500	17.4
			1016-5	0.06/0.07	0.440/0.500	12.0
			1260-1	0.00/0.07	0.420/0.500	16.0
			1260-2	0.00/0.07	0.644/0.500	28.8
			1260-3	0.00/0.07	0.368/0.500	26.4
			1260-4	0.00/0.08	0.455/0.500	9.0
			1260-5	0.00/0.07	0.427/0.500	14.6
					Average	**10.2 / 15.0**

NOTES
*: Calibration check drift outside of method-established control limits

Form 0: GC/ECD Injection Log - PCB Aroclor Analysis

Instrument ID: Varian/3400(B)/DB-5
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Analytical Batch: b031113.1

Index of Applicable Reporting Forms

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Form 1: GC/ECD Data Sheet
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Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 6: Initial Calibration Data
Form 7b: Calibration Verification Mixture Summary
Supplemental Forms: Chromatographic Data

Filename	LIMS ID	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
b031113.01r	sblk-r.01	11/13 11:51 AM	SBLK-R.01	WW	Bl		
b031113.02r	sc1660.01	11/13 12:08 PM	SC1660.01 0.5ppm	WW	CV		
b031113.03r	slcs-c.01	11/13 12:24 PM	SLCS-C.01 0.5ppm	WW			
b031113.04r	s15109.09	11/13 12:40 PM	S15109.09 850ml w/1 ID:031112w62	WW			
b031113.05r	s15110.01	11/13 12:57 PM	S15110.01 850ml w/1 ID:031112w62	WW			
b031113.06r	s15111.01	11/13 01:13 PM	S15111.01 940ml w/1 ID:031112w62	WW			
b031113.07r	s15112.02	11/13 01:29 PM	S15112.02 980ml w/1 ID:031112w62	WW			
b031113.08r	s15143.04	11/13 01:46 PM	S15143.04 C 930ml w/1 ID:031112w62	WW		1	
b031113.10r	ss1242.01	11/13 03:48 PM	SS1242.01 0.5ppm	WW			
b031113.11r	s15143.05	11/13 04:16 PM	S15143.05 R 950ml w/1 ID:031112w62	WW			
b031113.12r	s15143.06	11/13 04:33 PM	S15143.06 R 930ml w/1 ID:031112w62	WW			
b031113.13r	sc1660.02	11/13 04:49 PM	SC1660.02 0.5ppm	WW	CV		

Matrix (Mtx) Summary

Water Samples:	7	Soil Samples:	0
Water Duplicates:	0	Soil Duplicates:	0
Water Spikes:	0	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Surrogate Standard Outliers (Form 2): 1
2: Matrix Spike Outliers (Form 3b): 0
3: CVM Outliers (Form 7b): 0
4: Raw Data Included (Form 1+Chromatogram)

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

Instrument ID: Varian/3400(B)/DB-5 Analytical Batch: b031113.1
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Filename	LIMS ID	SSD Compound	Found/Spiked	%Rec.	LCL/UCL	Matrix
b031113.01r	sblk-r.01	TCX	10.74/10.00	107.4	49.0/134.0	WW
		DCBP	10.67/10.00	106.7	27.0/100.0	
b031113.02r	sc1660.01	TCX	5.03/10.00	n/a	49.0/134.0	WW
		DCBP	5.00/10.00	n/a	27.0/100.0	
b031113.03r	slcs-c.01	TCX	9.72/10.00	97.2	49.0/134.0	WW
		DCBP	9.35/10.00	93.5	27.0/100.0	
b031113.04r	s15109.09	TCX	9.12/10.00	91.2	49.0/134.0	WW
		DCBP	5.85/10.00	58.5	27.0/100.0	
b031113.05r	s15110.01	TCX	10.94/10.00	109.4	49.0/134.0	WW
		DCBP	6.06/10.00	60.6	27.0/100.0	
b031113.06r	s15111.01	TCX	8.30/10.00	83.0	49.0/134.0	WW
		DCBP	8.22/10.00	82.2	27.0/100.0	
b031113.07r	s15112.02	TCX	7.94/10.00	79.4	49.0/134.0	WW
		DCBP	2.47/10.00	24.7	27.0/100.0	
b031113.08r*	s15143.04	TCX	246.1/10.00	2461	49.0/134.0	WW
b031113.10r	ss1242.01	TCX	4.69/10.00	n/a	49.0/134.0	WW
		DCBP	4.13/10.00	n/a	27.0/100.0	
b031113.11r	s15143.05	TCX	8.66/10.00	86.6	49.0/134.0	WW
		DCBP	9.20/10.00	92.0	27.0/100.0	
b031113.12r	s15143.06	TCX	7.48/10.00	74.8	49.0/134.0	WW
		DCBP	3.07/10.00	30.7	27.0/100.0	
b031113.13r	sc1660.02	TCX	5.43/10.00	n/a	49.0/134.0	WW
		DCBP	4.91/10.00	n/a	27.0/100.0	

NOTES

*: Surrogate recovery outside of laboratory-established control limits
n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 4: Method Blank Summary

Instrument ID: Varian/3400(B)/DB-5 Analytical Batch: b031113.1
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*Run Time*	*Target Compound*	*Conc.*	*Matrix*
b031113.01r	sblk-r.01	11/13 11:51 AM	1016-3	0.006	WW
			1260-2	0.016	
			1260-4	0.008	
			1260-5	0.009	
			[end of list]	0.000	

Form 6: Initial Calibration Data

Instrument ID: Varian/3400(B)/DB-5 Analytical Batch: b031113.1
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Filename	Compound	Fit	RT- <CF>	RT %RSD	RT+ COD	C(1) CF(1)	C(2) CF(2)	C(3) CF(3)	C(4) CF(4)	C(5) CF(5)	C(6) CF(6)	k(0) k(2)	k(1) k(3)
b42030806.cal	TCX	A	1.05	1.12	1.19	2.00	4.00	6.00	8.00	10.00			0.090
				4.72		0.09	0.09	0.09	0.08	0.09			
	1242-1	A	1.65	1.72	1.79	0.20	0.40	0.60	0.80	1.00			1.766
				7.97		1.95	1.86	1.70	1.60	1.72			
	1242-2	A	1.84	1.91	1.98	0.20	0.40	0.60	0.80	1.00			1.284
				7.02		1.41	1.33	1.24	1.17	1.28			
	1242-3	A	2.17	2.24	2.31	0.20	0.40	0.60	0.80	1.00			3.968
				5.59		4.27	3.94	3.81	3.71	4.10			
	1242-4	A	2.30	2.37	2.44	0.20	0.40	0.60	0.80	1.00			1.713
				7.15		1.89	1.76	1.66	1.56	1.69			
	1242-5	A	3.18	3.25	3.32	0.20	0.40	0.60	0.80	1.00			1.711
				6.31		1.86	1.76	1.68	1.57	1.69			
	DCBP	A	13.0	13.1	13.1	2.00	4.00	6.00	8.00	10.00			0.085
				5.84		0.09	0.08	0.08	0.08	0.09			
b66030805.cal	TCX	A	1.06	1.13	1.20	2.00	4.00	6.00	8.00	10.00			0.058
						0.06	0.06	0.06	0.06	0.06			
	1016-1	A	1.64	1.71	1.78	0.20	0.40	0.60	0.80	1.00			1.933
				9.93		2.11	2.15	1.89	1.75	1.75			
	1016-2	A	1.83	1.90	1.97	0.20	0.40	0.60	0.80	1.00			1.401
				7.39		1.44	1.56	1.40	1.31	1.31			
	1016-3	A	2.16	2.23	2.30	0.20	0.40	0.60	0.80	1.00			4.151
				3.30		4.27	4.31	4.10	3.98	4.09			
	1016-4	A	2.29	2.36	2.43	0.20	0.40	0.60	0.80	1.00			1.804
				4.97		1.90	1.88	1.82	1.71	1.71			
	1016-5	A	2.40	2.47	2.54	0.20	0.40	0.60	0.80	1.00			1.359
				4.87		1.28	1.40	1.45	1.35	1.32			
	1260-1	A	6.14	6.21	6.28	0.20	0.40	0.60	0.80	1.00			5.482
				3.59		5.64	5.73	5.33	5.28	5.44			
	1260-2	A	6.79	6.86	6.93	0.20	0.40	0.60	0.80	1.00			5.666
				6.06		6.12	5.95	5.46	5.36	5.45			
	1260-3	A	7.24	7.31	7.38	0.20	0.40	0.60	0.80	1.00			3.348
				3.44		3.31	3.53	3.26	3.26	3.38			
	1260-4	A	8.58	8.65	8.72	0.20	0.40	0.60	0.80	1.00			10.212
				6.00		9.16	10.67	10.51	10.51	10.21			
	1260-5	A	9.33	9.40	9.47	0.20	0.40	0.60	0.80	1.00			4.626
				7.25		5.08	4.89	4.41	4.33	4.42			
	DCBP	A	13.1	13.1	13.2	2.00	4.00	6.00	8.00	10.00			0.066
						0.07	0.07	0.07	0.07	0.07			

CALIBRATION EQUATIONS

Average Fit : A = <CF>C
Power Law Fit : A = k(1)C^k(0)
Polynomial Fit: A = k(0)+k(1)C+k(2)C^2+k(3)C^3

NOTATION

A : peak area or height
C : analyte concentration
CF : calibration factor x 1e-6 (A/C)
k(i): calibration constant x 1e-6

CALIBRATION ABBREVIATIONS

A : Average Fit
PW: Power Law Fit
L : Linear (Polynomial) Fit
Q : Quadratic (Polynomial) Fit
C : Cubic (Polynomial) Fit

Calibration (1): b42030806.cal / mean %rsd: 6.4
Calibration (2): b66030805.cal / mean %rsd: 4.7

Form 7b: Calibration Verification Mixture

Instrument ID: Varian/3400(B)/DB-5 Analytical Batch: b031113.1
GC Column: DB-5/L:30m/D:0.25mm/F:0.25um

Filename	*LIMS ID*	*Run Time*	*CVM Component*	*Δ RT/Win.*	*CVM Conc.*	*CVM %D/ UCL*
b031113.02r	sc1660.01	11/13 12:08 PM	1016-1	0.01/0.07	0.512/0.500	2.4
			1016-2	0.02/0.07	0.514/0.500	2.8
			1016-3	0.03/0.07	0.531/0.500	6.2
			1016-4	0.03/0.07	0.539/0.500	7.8
			1016-5	0.02/0.07	0.568/0.500	13.6
			1260-1	0.04/0.07	0.444/0.500	11.2
			1260-2	0.05/0.07	0.485/0.500	3.0
			1260-3	0.04/0.07	0.537/0.500	7.4
			1260-4	0.05/0.07	0.463/0.500	7.4
			1260-5	0.05/0.07	0.393/0.500	21.4
					Average	**0.3/ 15.0**
b031113.13r	sc1660.02	11/13 04:49 PM	1016-1	0.01/0.07	0.518/0.500	3.6
			1016-2	0.01/0.07	0.523/0.500	4.6
			1016-3	0.01/0.07	0.557/0.500	11.4
			1016-4	0.02/0.07	0.553/0.500	10.6
			1016-5	0.01/0.07	0.579/0.500	15.8
			1260-1	0.03/0.07	0.466/0.500	6.8
			1260-2	0.04/0.07	0.462/0.500	7.6
			1260-3	0.03/0.07	0.509/0.500	1.8
			1260-4	0.04/0.07	0.444/0.500	11.2
			1260-5	0.04/0.07	0.397/0.500	20.6
					Average	**0.2/ 15.0**

NOTES
*: Calibration check drift outside of method-established control limits

GM
Linden Road
15461

General Comment:
All samples were extracted/digested and analyzed within the required holding times.

Volatile Organics:

Lab ID (15461)	Sample ID	Sample Date	Analysis Date
01	GP-14 (7-12)	12/9/03	12/22/03
02	GP-18 (7-12)	12/9/03	12/22/03
03	Trip Blank	12/9/03	12/22/03
04	GP-16 (4.5-5.0)	12/9/03	12/22/03
05	GP-17 (4.5-5.0)	12/9/03	12/22/03
06	GP-17 (4.5-5.0)	12/9/03	12/22/03

1. Method Blank:
The method blank was free of contamination.

2. Surrogate Recovery
All surrogate recoveries associated with this sample set were within required limits.

3. Matrix Spike/Matrix Spike Duplicate
Sample 6 was used as the MS. All recoveries were within laboratory required control limits.

4. Instrument Performance Check
All instrument performance check results are acceptable.

5. Internal Standards
All internal standard recoveries were within the control limits (50 to 200).

6. Calibration Check Compounds
The calibration check compounds indicated acceptable results.

7. Laboratory Control Sample
All LCS recoveries were within required control limits.

8. Trip Blank
Sample 03 was a trip blank. The blank was free of contamination.

Data Reviewed by: T. Balla Date: 1/19/04

Analytical Laboratory Report

Report ID: S15461.01(01)
Generated on 12/23/2003

Report to

Attention: Mr. Babusukumar
Weston Solutions, Inc.
750 East Bunker Court Ste 500
Vernon Hills, IL 60061

Phone: 847-918-4018 FAX: 847-918-4055

Report produced by

Merit Laboratories
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Report Summary

Lab Sample ID(s): S15461.01-S15461.06
Project: GM Linden Rd.
Submitted Date/Time: 12/10/2003 08:08
Sampled by: KL
P.O. #:

Report Notes

Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
Results relate only to items tested.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories.

Violetta F. Murshak

Violetta F. Murshak
Laboratory Director

Analytical Laboratory Report

Merit Laboratories, Inc.

Lab Sample ID: S15461.01
Sample Tag: GP-14 7-12
Collected Date/Time: 12/09/2003 09:45
Matrix: Groundwater
COC Reference: 018510

Sample Containers

	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4.8	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	12/22/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	12/22/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	12/22/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	12/22/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	12/22/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	12/22/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	12/22/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	12/22/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	12/22/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	12/22/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-42-3	

Lab Sample ID: S15461.01 (continued)
Sample Tag: GP-14 7-12

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	12/22/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	12/22/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	12/22/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	12/22/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	12/22/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	12/22/03	JGH	1634-04-4	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15461.02
Sample Tag: GP-18 7-12
Collected Date/Time: 12/09/2003 11:15
Matrix: Groundwater
COC Reference: 018510

Sample Containers

	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4.8	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	12/22/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	12/22/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	12/22/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	12/22/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	12/22/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	12/22/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	12/22/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	12/22/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	12/22/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	12/22/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-42-3	

Lab Sample ID: S15461.02 (continued)
Sample Tag: GP-18 7-12

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	12/22/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	12/22/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	12/22/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	12/22/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	12/22/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	12/22/03	JGH	1634-04-4	

Analytical Laboratory Report

Merit Laboratories, Inc.

Lab Sample ID: S15461.03
Sample Tag: Trip Blank
Collected Date/Time: 12/09/2003 :
Matrix: Groundwater
COC Reference: 018510

Sample Containers

	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40 ml Glass	HCL	Yes	4.8	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	12/22/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	12/22/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	12/22/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	12/22/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	12/22/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	12/22/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	12/22/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	12/22/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	12/22/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	12/22/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-42-3	

Lab Sample ID: S15461.03 (continued)
Sample Tag: Trip Blank

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	12/22/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	12/22/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	12/22/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	12/22/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	12/22/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	12/22/03	JGH	1634-04-4	

Analytical Laboratory Report

Merit Laboratories, Inc.

ab Sample ID: S15461.04
ample Tag: GP-16 4.5-5.0
Collected Date/Time: 12/09/2003 14:15
Matrix: Groundwater
COC Reference: 018510

ample Containers

	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4.8	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	12/22/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	12/22/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	12/22/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	12/22/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	12/22/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	12/22/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	12/22/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	12/22/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	12/22/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-00-5	
Trichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	12/22/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-47-6	
m,m-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-42-3	

Lab Sample ID: S15461.04 (continued)
Sample Tag: GP-16 4.5-5.0

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	12/22/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	12/22/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	12/22/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	12/22/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	12/22/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	12/22/03	JGH	1634-04-4	

Merit Laboratories, Inc.

Analytical Laboratory Report

ab Sample ID: S15461.05
Sample Tag: GP-17 4.5-5.0
Collected Date/Time: 12/09/2003 14:45
Matrix: Groundwater
COC Reference: 018510

Sample Containers

	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4.8	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	12/22/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	12/22/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	12/22/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	12/22/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	12/22/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	12/22/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	12/22/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	12/22/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	12/22/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-00-5	
Trichloroethene	2	ug/L	1	8260B	12/22/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	12/22/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-47-6	
m,m-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-42-3	

Lab Sample ID: S15461.05 (continued)
Sample Tag: GP-17 4.5-5.0

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	12/22/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	12/22/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	12/22/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	12/22/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	12/22/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	12/22/03	JGH	1634-04-4	

Merit Laboratories, Inc.

Analytical Laboratory Report

Lab Sample ID: S15461.06
Sample Tag: GP-17 4.5-5.0 Dup
Collected Date/Time: 12/09/2003 14:45
Matrix: Groundwater
COC Reference: 018510

Sample Containers

	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
2	40 ml Glass	HCL	Yes	4.8	2

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics								
Volatile Organics								
Benzene	Not detected	ug/L	1	8260B	12/22/03	JGH	71-43-2	
Bromodichloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-27-4	
Bromoform	Not detected	ug/L	1	8260B	12/22/03	JGH	75-25-2	
Bromomethane	Not detected	ug/L	5	8260B	12/22/03	JGH	74-83-9	
n-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	104-51-8	
sec-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	135-98-8	
tert-Butylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-06-6	
Carbon tetrachloride	Not detected	ug/L	1	8260B	12/22/03	JGH	56-23-5	
Chlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-90-7	
Chloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-00-3	
Chloroform	Not detected	ug/L	1	8260B	12/22/03	JGH	67-66-3	
Chloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	74-87-3	
Dibromochloromethane	Not detected	ug/L	1	8260B	12/22/03	JGH	124-48-1	
1,2-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-50-1	
1,3-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	541-73-1	
1,4-Dichlorobenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-46-7	
1,1-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	75-34-3	
1,2-Dichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	107-06-2	
1,1-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	75-35-4	
cis-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-59-2	
trans-1,2-Dichloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	156-60-5	
1,2-Dichloropropane	Not detected	ug/L	1	8260B	12/22/03	JGH	78-87-5	
cis-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-01-5	
trans-1,3-Dichloropropene	Not detected	ug/L	1	8260B	12/22/03	JGH	10061-02-6	
Ethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-41-4	
Isopropylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	98-82-8	
p-Isopropyltoluene	Not detected	ug/L	1	8260B	12/22/03	JGH	99-87-6	
Methylene chloride	Not detected	ug/L	5	8260B	12/22/03	JGH	75-09-2	
Naphthalene	Not detected	ug/L	1	8260B	12/22/03	JGH	91-20-3	
n-Propylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	103-65-1	
Styrene	Not detected	ug/L	1	8260B	12/22/03	JGH	100-42-5	
1,1,2,2-Tetrachloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-34-5	
Tetrachloroethene	Not detected	ug/L	1	8260B	12/22/03	JGH	127-18-4	
Toluene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-88-3	
1,1,1-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	71-55-6	
1,1,2-Trichloroethane	Not detected	ug/L	1	8260B	12/22/03	JGH	79-00-5	
Trichloroethene	2	ug/L	1	8260B	12/22/03	JGH	79-01-6	
1,2,4-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-63-6	
1,3,5-Trimethylbenzene	Not detected	ug/L	1	8260B	12/22/03	JGH	108-67-8	
Vinyl chloride	Not detected	ug/L	1	8260B	12/22/03	JGH	75-01-4	
o-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	95-47-6	
p,m-Xylene	Not detected	ug/L	1	8260B	12/22/03	JGH	106-42-3	

Lab Sample ID: S15461.06 (continued)
Sample Tag: GP-17 4.5-5.0 Dup

Analysis	Results	Units	RDL	Method	Date Run	Analyst	CAS #	Flags
Organics (continued)								
Volatile Organics (continued)								
Acetone	Not detected	ug/L	50	8260B	12/22/03	JGH	67-64-1	
2-Butanone (MEK)	Not detected	ug/L	50	8260B	12/22/03	JGH	78-93-3	
Carbon disulfide	Not detected	ug/L	50	8260B	12/22/03	JGH	75-15-0	
2-Hexanone	Not detected	ug/L	50	8260B	12/22/03	JGH	591-78-6	
4-Methyl-2-pentanone (MIBK)	Not detected	ug/L	50	8260B	12/22/03	JGH	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	ug/L	10	8260B	12/22/03	JGH	1634-04-4	

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

C.O.C. PAGE # 1 OF 1

018510

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Babusukumar (WESTON)
COMPANY: Weston Solutions, Inc
ADDRESS: 750 Bunker Court Suite 100
CITY: Vernon Hills | STATE: IL | ZIP CODE: 60061
PHONE NO: 847 918 4000 | FAX NO: 847 918 4055 | P.O. NO.:
E-MAIL ADDRESS: Babu.Babusukumar@westonsolutions.com | QUOTE NO.:

PROJECT NO./NAME: GM Linden Rd
SAMPLER(S) - PLEASE PRINT NAME: Kirk Lapham

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: | STATE: | ZIP CODE:
PHONE NO.: | FAX NO.: | P.O. NO.:

PRESERVATIVE CODE: E
REFRIGERATE (Y/N): Y
BOTTLE TYPE: VOA 2-40ML

SAMPLE TYPE: GW ☒ WW ☐ OIL ☐ SOIL ☐ PRODUCT ☐ SLUDGE ☐ OTHER ____

A = NONE
B = HNO_3
C = H_2SO_4
D = NaOH
E = HCL
F = ____

RUSH ANALYSES ☐ DUE DATE ____
RUSH PICK-UP ☐ APPROVED BY: ____

MERIT LAB NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	# OF BOTTLES	ANALYSES (15)
15461.01	12/9/03	945	GP-14 7-12	2	X VOC
02	12/9/03	1115	GP-8 7-12	2	X VOC
03	—	—	Trip Blank	1	X VOC
04	12/9/03	1415	GP-16 4.5-5.0	2	X VOC
05	12/9/03	1495	GP-17 4.5-5.0	2	X VOC
06	12/9/03	1445	GP-17 4.5-5.0 DUP	2	X VOC

RELINQUISHED BY: SIGNATURE	☒ SAMPLER	DATE 12/10/03	TIME 808	
RECEIVED BY: SIGNATURE		DATE	TIME	
RELINQUISHED BY: SIGNATURE		DATE	TIME	
RECEIVED BY: SIGNATURE		DATE	TIME	

RELINQUISHED BY: SIGNATURE		DATE	TIME	
RECEIVED AT MERIT BY: SIGNATURE		DATE 12/10/03	TIME 0808	

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEAS : SIGN NOW ACCE OF T CONI ON RI SIDE

Form 0: GC/MS injection Log - Volatile Organics

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.1
Heated Purge: Yes

Index of Applicable Reporting Forms

Form 0: GC/MS Injection Log - Volatile Organics
Form 1: GC/MS Data Sheet
Form 2: Surrogate Standard Recoveries
Form 3a: Duplicate/Matrix Spike Duplicate Summary
Form 3b: Matrix Spike Summary
Form 4: Method Blank Summary
Form 5: Instrument Performance Check (BFB/DFTPP)
Form 6: Initial Calibration Data
Form 7a: System Performance Compounds Check
Form 7b: Calibration Check Compounds
Form 8: Internal Standard Area and Retention Time Summary
Supplemental Forms: Chromatographic Data

Filename	Run Time	Sample Comments	Mtx	QC Type	Notes	CA
bfb22a.d	12/22/03 12:16	bfb 50ng [none]	WW	IP		
spcc22a.d	12/22/03 13:16	spcc/ccc [none]	WW	CV		
w-22a.d	12/22/03 13:50	wash [none]	WW			
blk-w22a.d	12/22/03 14:24	blank vf031222w1	WW	Bl		
1555102.d	12/22/03 14:58	200ul vf031222w1	WW			
1555107.d	12/22/03 15:32	200ul vf031222w1	WW			
1556807.d	12/22/03 16:06	5ml vf031222w1	WW			
1555102r.d	12/22/03 16:41	5ml vf031222w1	WW			
1555107r.d	12/22/03 17:15	5ml vf031222w1	WW			
1546101.d	12/22/03 18:21	5ml vf031222w1	WW			
1546102.d	12/22/03 18:54	5ml vf031222w1	WW			
1546103.d	12/22/03 19:29	5ml vf031222w1	WW			
1546104.d	12/22/03 20:03	5ml vf031222w1	WW			
1546105.d	12/22/03 20:37	5ml vf031222w1	WW			
1546106.d	12/22/03 21:11	5ml vf031222w1	WW			
1546106d.d	12/22/03 21:45	5ml vf031222w1	WW	Dp		
1546106m.d	12/22/03 22:20	5ml vf031222w1	WW	MS		
lcs-w22a.d	12/22/03 22:54	blankms vf031222w1	WW	MS		
bfb23a.d	12/22/03 23:29	bfb 50ng [none]	WW	IP		
spcc23a.d	12/23/03 00:03	spcc/ccc [none]	WW	CV		
w-23a.d	12/23/03 00:37	wash [none]	WW			
1552105.d	12/23/03 01:12	5ml vf031222w1	WW			
1552106.d	12/23/03 01:46	5ml vf031222w1	WW			
1552107.d	12/23/03 02:20	500ul vf031222w1	WW			
1548101.d	12/23/03 02:55	5ml vf031222w1	WW			
1548102.d	12/23/03 03:29	5ml vf031222w1	WW			
1548103.d	12/23/03 04:03	5ml vf031222w1	WW			
1548104.d	12/23/03 04:38	5ml vf031222w1	WW			
1548105.d	12/23/03 05:12	5ml vf031222w1	WW			
1557501.d	12/23/03 05:46	5ml vf031222w1	WW			
1557502.d	12/23/03 06:20	5ml vf031222w1	WW			
1557503.d	12/23/03 06:55	5ml vf031222w1	WW			
1552107r.d	12/23/03 10:14	5ml vf031222w1	WW		2	

Matrix (Mtx) Summary

Water Samples:	23	Soil Samples:	0
Water Duplicates:	1	Soil Duplicates:	0
Water Spikes:	2	Soil Spikes:	0
Water Blanks:	1	Soil Blanks:	0

QC Sample Type Summary

IP: Instrument Performance
CV: Calibration Verification
MS: Matrix Spike/MS Duplicate
Bl: Blank
Dp: Duplicate

Corrective Action (CA) Summary

E: Estimated Result
R: Reanalyze Sample
S: Surrogate Standard Outlier
C: Concentration Beyond Calibration
T: Exceeds Time Limit
X: Other

Notes Summary

1: Raw Data Included (Form 1 + Chromatograms)
2: Surrogate Standard Outliers (Form 2): 1
3: Matrix Spike Outliers (Form 3b): 0
4: CVM Outliers (Form 7b): 0

Batch Comments

[no comments]

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia
Level: N/A

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
spcc22a.d	4-Bromofluorobenzene	54.5/ 50.0	n/a	78.4/119.6	WW
	1,2-Dichloroethane-D4	45.9/ 50.0	n/a	66.4/124.8	
	Toluene-D8	52.1/ 50.0	n/a	82.5/118.4	
				Total Outliers: n/a	
w-22a.d	4-Bromofluorobenzene	53.0/ 50.0	n/a	78.4/119.6	WW
	1,2-Dichloroethane-D4	44.4/ 50.0	n/a	66.4/124.8	
	Toluene-D8	52.6/ 50.0	n/a	82.5/118.4	
				Total Outliers: n/a	
blk-w22a.d	4-Bromofluorobenzene	51.8/ 50.0	103.6	78.4/119.6	WW
	1,2-Dichloroethane-D4	44.6/ 50.0	89.1	66.4/124.8	
	Toluene-D8	50.0/ 50.0	100.0	82.5/118.4	
				Total Outliers: 0	
1555102.d	4-Bromofluorobenzene	51.7/ 50.0	103.4	78.4/119.6	WW
	1,2-Dichloroethane-D4	49.8/ 50.0	99.6	66.4/124.8	
	Toluene-D8	49.6/ 50.0	99.2	82.5/118.4	
				Total Outliers: 0	
1555107.d	4-Bromofluorobenzene	50.7/ 50.0	101.4	78.4/119.6	WW
	1,2-Dichloroethane-D4	48.1/ 50.0	96.2	66.4/124.8	
	Toluene-D8	51.7/ 50.0	103.4	82.5/118.4	
				Total Outliers: 0	
1556807.d	4-Bromofluorobenzene	53.0/ 50.0	105.9	78.4/119.6	WW
	1,2-Dichloroethane-D4	45.7/ 50.0	91.3	66.4/124.8	
	Toluene-D8	48.6/ 50.0	97.2	82.5/118.4	
				Total Outliers: 0	
1555102r.d	4-Bromofluorobenzene	55.5/ 50.0	111.0	78.4/119.6	WW
	1,2-Dichloroethane-D4	49.9/ 50.0	99.8	66.4/124.8	
	Toluene-D8	50.8/ 50.0	101.5	82.5/118.4	
				Total Outliers: 0	
1555107r.d	4-Bromofluorobenzene	55.6/ 50.0	111.3	78.4/119.6	WW
	1,2-Dichloroethane-D4	49.6/ 50.0	99.1	66.4/124.8	
	Toluene-D8	52.1/ 50.0	104.1	82.5/118.4	
				Total Outliers: 0	
1546101.d	4-Bromofluorobenzene	56.6/ 50.0	113.2	78.4/119.6	WW
	1,2-Dichloroethane-D4	51.1/ 50.0	102.1	66.4/124.8	
	Toluene-D8	51.8/ 50.0	103.6	82.5/118.4	
				Total Outliers: 0	
1546102.d	4-Bromofluorobenzene	56.5/ 50.0	112.9	78.4/119.6	WW
	1,2-Dichloroethane-D4	49.4/ 50.0	98.7	66.4/124.8	
	Toluene-D8	55.0/ 50.0	110.0	82.5/118.4	
				Total Outliers: 0	
1546103.d	4-Bromofluorobenzene	55.0/ 50.0	110.0	78.4/119.6	WW
	1,2-Dichloroethane-D4	48.3/ 50.0	96.6	66.4/124.8	
	Toluene-D8	54.2/ 50.0	108.5	82.5/118.4	
				Total Outliers: 0	
1546104.d	4-Bromofluorobenzene	54.9/ 50.0	109.7	78.4/119.6	WW
	1,2-Dichloroethane-D4	52.3/ 50.0	104.7	66.4/124.8	
	Toluene-D8	53.6/ 50.0	107.2	82.5/118.4	
				Total Outliers: 0	
1546105.d	4-Bromofluorobenzene	53.4/ 50.0	106.7	78.4/119.6	WW
	1,2-Dichloroethane-D4	47.2/ 50.0	94.5	66.4/124.8	
	Toluene-D8	52.4/ 50.0	104.8	82.5/118.4	
				Total Outliers: 0	

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia
Level: N/A

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
1546106.d	4-Bromofluorobenzene	51.9/ 50.0	103.8	78.4/119.6	WW
	1,2-Dichloroethane-D4	46.1/ 50.0	92.1	66.4/124.8	
	Toluene-D8	52.8/ 50.0	105.7	82.5/118.4	
				Total Outliers:	0
1546106d.d	4-Bromofluorobenzene	53.1/ 50.0	106.1	78.4/119.6	WW
	1,2-Dichloroethane-D4	49.8/ 50.0	99.5	66.4/124.8	
	Toluene-D8	53.9/ 50.0	107.8	82.5/118.4	
				Total Outliers:	0
1546106m.d	4-Bromofluorobenzene	55.5/ 50.0	111.0	78.4/119.6	WW
	1,2-Dichloroethane-D4	44.9/ 50.0	89.8	66.4/124.8	
	Toluene-D8	49.8/ 50.0	99.6	82.5/118.4	
				Total Outliers:	0
lcs-w22a.d	4-Bromofluorobenzene	56.6/ 50.0	113.2	78.4/119.6	WW
	1,2-Dichloroethane-D4	48.5/ 50.0	96.9	66.4/124.8	
	Toluene-D8	52.6/ 50.0	105.1	82.5/118.4	
				Total Outliers:	0
spcc23a.d	4-Bromofluorobenzene	55.1/ 50.0	n/a	78.4/119.6	WW
	1,2-Dichloroethane-D4	51.3/ 50.0	n/a	66.4/124.8	
	Toluene-D8	53.9/ 50.0	n/a	82.5/118.4	
				Total Outliers:	n/a
w-23a.d	4-Bromofluorobenzene	55.9/ 50.0	n/a	78.4/119.6	WW
	1,2-Dichloroethane-D4	51.5/ 50.0	n/a	66.4/124.8	
	Toluene-D8	52.9/ 50.0	n/a	82.5/118.4	
				Total Outliers:	n/a
1552105.d	4-Bromofluorobenzene	54.9/ 50.0	109.9	78.4/119.6	WW
	1,2-Dichloroethane-D4	50.8/ 50.0	101.6	66.4/124.8	
	Toluene-D8	53.2/ 50.0	106.5	82.5/118.4	
				Total Outliers:	0
1552106.d	4-Bromofluorobenzene	56.7/ 50.0	113.4	78.4/119.6	WW
	1,2-Dichloroethane-D4	52.0/ 50.0	104.0	66.4/124.8	
	Toluene-D8	53.4/ 50.0	106.9	82.5/118.4	
				Total Outliers:	0
1552107.d	4-Bromofluorobenzene	55.8/ 50.0	111.6	78.4/119.6	WW
	1,2-Dichloroethane-D4	50.3/ 50.0	100.6	66.4/124.8	
	Toluene-D8	54.0/ 50.0	108.0	82.5/118.4	
				Total Outliers:	0
1548101.d	4-Bromofluorobenzene	55.8/ 50.0	111.7	78.4/119.6	WW
	1,2-Dichloroethane-D4	50.5/ 50.0	101.0	66.4/124.8	
	Toluene-D8	53.3/ 50.0	106.7	82.5/118.4	
				Total Outliers:	0
1548102.d	4-Bromofluorobenzene	55.6/ 50.0	111.2	78.4/119.6	WW
	1,2-Dichloroethane-D4	51.9/ 50.0	103.8	66.4/124.8	
	Toluene-D8	52.6/ 50.0	105.2	82.5/118.4	
				Total Outliers:	0
1548103.d	4-Bromofluorobenzene	54.4/ 50.0	108.7	78.4/119.6	WW
	1,2-Dichloroethane-D4	48.4/ 50.0	96.7	66.4/124.8	
	Toluene-D8	52.8/ 50.0	105.6	82.5/118.4	
				Total Outliers:	0
1548104.d	4-Bromofluorobenzene	54.7/ 50.0	109.3	78.4/119.6	WW
	1,2-Dichloroethane-D4	52.9/ 50.0	105.7	66.4/124.8	
	Toluene-D8	52.1/ 50.0	104.2	82.5/118.4	
				Total Outliers:	0

Form 2: Surrogate Standard Recoveries/System Monitoring Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia
Level: N/A

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	SSD Compound	Concentration Found/Spiked	%Rec.	LCL/UCL	Matrix
1548105.d	4-Bromofluorobenzene	52.8/ 50.0	105.5	78.4/119.6	WW
	1,2-Dichloroethane-D4	53.2/ 50.0	106.5	66.4/124.8	
	Toluene-D8	52.1/ 50.0	104.2	82.5/118.4	
				Total Outliers:	0
1557501.d	4-Bromofluorobenzene	54.5/ 50.0	109.0	78.4/119.6	WW
	1,2-Dichloroethane-D4	54.6/ 50.0	109.1	66.4/124.8	
	Toluene-D8	53.4/ 50.0	106.9	82.5/118.4	
				Total Outliers:	0
1557502.d	4-Bromofluorobenzene	56.8/ 50.0	113.5	78.4/119.6	WW
	1,2-Dichloroethane-D4	50.2/ 50.0	100.4	66.4/124.8	
	Toluene-D8	52.4/ 50.0	104.8	82.5/118.4	
				Total Outliers:	0
1557503.d	4-Bromofluorobenzene	54.8/ 50.0	109.7	78.4/119.6	WW
	1,2-Dichloroethane-D4	50.8/ 50.0	101.7	66.4/124.8	
	Toluene-D8	52.2/ 50.0	104.5	82.5/118.4	
				Total Outliers:	0
1552107r.d	4-Bromofluorobenzene	63.1/ 50.0	126.1 *	78.4/119.6	WW
	1,2-Dichloroethane-D4	52.2/ 50.0	104.3	66.4/124.8	
	Toluene-D8	54.6/ 50.0	109.2	82.5/118.4	
				Total Outliers:	1

NOTES

*: Surrogate recovery outside of laboratory-established control limits

n/a: Surrogate recovery not applicable (diluted run or standard run)

Form 3a: Duplicate/Matrix Spike Duplicate Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

File Name	Sample Name	Target Compound	Dup/Samp Conc.	%RPD	Matrix
1546106d.d	1546106.d	acetone (*)	3.02/ 2.40	22.9	WW
		trichloroethene (ms)	1.62/ 1.67	3.0	
		[end of compound list]			

Total Outliers: 0

Form 3b: Matrix Spike Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.l
Heated Purge: Yes
Concentration Units: ug/L

File Name	Sample Name	Target Compound	MS/Samp Conc.	SP Amt.	%Rec	LCL/UCL	Mat.
1546106m.d	1546106.d	Benzene	23.26/ 0.00	25.00	93.0	73.7/127.0	WW
		Chlorobenzene	28.67/ 0.00	25.00	114.7	75.0/130.0	
		1,1-Dichloroethene	21.03/ 0.00	25.00	84.1	59.9/145.0	
		Trichloroethene	26.25/ 1.67	25.00	98.3	71.0/121.2	
		Toluene	26.09/ 0.00	25.00	104.4	71.4/127.6	
						Total Outliers:	0
Spike Preparation Batch: vf031222w1							
lcs-w22a.d	blk-w22a.d	Benzene	24.43/ 0.00	25.00	97.7	73.7/127.0	WW
		Chlorobenzene	26.28/ 0.00	25.00	105.1	75.0/130.0	
		1,1-Dichloroethene	19.74/ 0.00	25.00	79.0	59.9/145.0	
		Trichloroethene	24.08/ 0.00	25.00	96.3	71.0/121.2	
		Toluene	25.30/ 0.00	25.00	101.2	71.4/127.6	
						Total Outliers:	0
Spike Preparation Batch: vf031222w1							

NOTES
*: LCS/Matrix Spike recovery outside of laboratory-established control limits

Form 4: Method Blank Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia
Level: N/A

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Prep Batch*	*Run Time*	*Target Compound*	*Conc.*	*Sample*	*Matrix*
blk-w22a.d	vf031222w1	12/22/03 14:24	[end of compound list]	0.00 ug/L	0.00 ug/L	WW

KEY:
[Conc.]: Concentration in sample extract/purge volume
[Sample]: Concentration in original sample weight/volume

Form 4: Method Blank Summary - Blank / LCS / Sample Association

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia
Level: N/A

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

Method Blank Data File: blk-w22a.d
LCS Data File: lcs-w22a.d

Blank/LCS Preparation Batch: vf031222w1

Sample ID	*Anal. Batch*	*Prep. Batch*	*Date*	*Analysis*	*Analysis Code*
S15461.01	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15461.02	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15461.03	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15461.04	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15461.05	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15461.06	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15481.01	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15481.02	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15481.03	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15481.04	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15481.05	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15521.05	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15521.06	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15521.07	031222al	vf031222w1	12/23/03	Volatile Organics	$8260W
S15551.02	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15551.07	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15568.07	031222al	vf031222w1	12/22/03	Volatile Organics	$8260W
S15575.01	031222al	vf031222w1	12/23/03	BTEX	$BTEX624
	031222al	vf031222w1		1,2-Dichloroethane	DCA624
S15575.02	031222al	vf031222w1	12/23/03	BTEX	$BTEX624
	031222al	vf031222w1		1,2-Dichloroethane	DCA624
S15575.03	031222al	vf031222w1	12/23/03	BTEX	$BTEX624
	031222al	vf031222w1		1,2-Dichloroethane	DCA624

Form 5: Instrument Performance Check (BFB/DFTPP)

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.1
Heated Purge: Yes

Filename	Run Time	Tgt. Mass	Rel. Mass	LCL(%)	UCL(%)	Rel.Abn.	Raw Abn.	Result
bfb22a.d	12/22/03 12:16	50	95	15.0	40.0	18.3	28184	PASS
		75	95	30.0	60.0	49.5	76248	PASS
		95	95	100.0	100.0	100.0	153920	PASS
		96	95	5.0	9.0	5.6	8646	PASS
		173	174	0.0	2.0	1.2	1316	PASS
		174	95	50.0	200.0	70.5	108496	PASS
		175	174	5.0	9.0	8.1	8791	PASS
		176	174	95.0	101.0	100.3	108792	PASS
		177	176	5.0	9.0	7.0	7591	PASS
Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples								
bfb23a.d	12/22/03 23:29	50	95	15.0	40.0	20.7	5992	PASS
		75	95	30.0	60.0	57.0	16496	PASS
		95	95	100.0	100.0	100.0	28960	PASS
		96	95	5.0	9.0	7.5	2182	PASS
		173	174	0.0	2.0	0.0	0	PASS
		174	95	50.0	200.0	75.9	21984	PASS
		175	174	5.0	9.0	8.1	1789	PASS
		176	174	95.0	101.0	98.1	21568	PASS
		177	176	5.0	9.0	6.8	1457	PASS
Note: See Form 0 (Injection Log) for 12-hour time increments and associated samples								

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.l
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fl031209.m	PENTAFLUOROBENZENE (I)	I			100.0	60.00	1.000	20.00	10.00	200.0				
	1,2-DICHLOROETHANE-D4 (S)	A	0.554	2.18	0.562	0.561	0.547	0.537	0.570	0.549				
	Diethyl ether (*)	QO	0.198	19.6	0.223	0.218	0.122	0.216	0.193	0.217	1.00	0.00	0.223	0.00
	Acetone (*)	A	0.159	14.4	0.144	0.175		0.169	0.181	0.127				
	Methyl iodide (iodomethane) (*	A	0.527	12.5	0.545	0.598	0.420	0.573	0.547	0.478				
	Carbon disulfide (*)	QO	1.276	16.8	1.378	1.466	0.868	1.377	1.231	1.333	1.00	0.00	1.454	-0.03
	tert-Methyl butyl ether (MTBE)	A	0.892	11.7	0.943	0.982	0.698	0.966	0.888	0.875				
	Acrylonitrile (*)	A	0.137	7.28	0.143	0.145		0.138	0.120	0.140				
	2-Butanone (MEK) (*)	L	0.224	9.60	0.208	0.236		0.244	0.236	0.194	0.99	0.02	0.193	0.00
	Dichlorodifluoromethane	QO	0.418	17.0	0.425	0.445	0.289	0.473	0.482	0.391	1.00	0.00	0.465	-0.02
	Chloromethane (SPCC)	QO	0.530	4.24	0.535	0.537	0.496	0.548	0.554	0.510	1.00	0.00	0.555	-0.01
	Vinyl Chloride (CCC)	QO	0.429	13.2	0.447	0.471	0.319	0.455	0.462	0.419	1.00	0.00	0.481	-0.02
	Bromomethane	QO	0.080	32.4	0.090	0.093	0.030	0.100	0.094	0.075	1.00	0.00	0.103	-0.01
	Chloroethane	QO	0.348	11.1	0.358	0.372	0.274	0.374	0.370	0.337	1.00	0.00	0.382	-0.01
	Trichlorofluoromethane	QO	0.713	10.8	0.741	0.764	0.558	0.746	0.743	0.725	1.00	0.00	0.765	-0.01
	1,1-Dichloroethene (CCC/MS)	QO	0.736	16.5	0.790	0.813	0.492	0.794	0.779	0.748	1.00	0.00	0.832	-0.02
	Methylene Chloride	LO	0.711	2.89	0.713	0.739	0.677	0.720	0.712	0.702	1.00	0.00	0.707	0.00
	trans-1,2-Dichloroethene	QO	0.792	5.74	0.798	0.843	0.722	0.835	0.795	0.761	1.00	0.00	0.851	-0.02
	1,1-Dichloroethane (SPCC)	QO	0.896	11.6	0.957	0.986	0.699	0.943	0.868	0.925	1.00	0.00	0.992	-0.02
	2,2-Dichloropropane	A	0.539	17.1	0.607	0.610	0.373	0.558	0.493	0.594				
	cis-1,2-Dichloroethene	QO	0.528	12.0	0.550	0.571	0.413	0.588	0.540	0.504	1.00	0.00	0.596	-0.02
	Chloroform (CCC)	QO	0.939	8.16	0.969	1.004	0.795	0.987	0.965	0.916	1.00	0.00	1.027	-0.03
	Bromochloromethane	QO	0.280	13.9	0.281	0.301	0.205	0.316	0.295	0.283	1.00	0.00	0.294	0.00
	1,1,1-Trichloroethane	QO	0.785	9.71	0.845	0.864	0.653	0.806	0.749	0.790	1.00	0.00	0.889	-0.02
	1,1-Dichloropropene	QO	0.789	11.2	0.807	0.877	0.631	0.839	0.831	0.749	1.00	0.00	0.889	-0.04
	1,4-DIFLUOROBENZENE (I)	I			100.0	60.00	1.000	20.00	10.00	200.0				
	TOLUENE-D8 (S)	A	1.012	1.27	0.999	0.999	1.021	1.027	1.021	1.002				
	4-Methyl-2-pentanone (MIBK) (*	L	0.083	7.61	0.083	0.080		0.093	0.076	0.082	1.00	0.00	0.082	0.00
	2-Hexanone (*)	L	0.073	6.06	0.071	0.072		0.081	0.070	0.072	1.00	0.00	0.072	0.00
	Carbon Tetrachloride	QO	0.341	9.90	0.357	0.374	0.283	0.358	0.356	0.319	1.00	0.00	0.393	-0.02
	Benzene (MS)	QO	1.075	4.93	1.072	1.137	1.070	1.126	1.052	0.991	1.00	0.00	1.168	-0.04
	1,2-Dichloroethane	QO	0.479	6.68	0.464	0.507	0.478	0.513	0.484	0.425	1.00	0.00	0.519	-0.02
	Trichloroethene (MS)	QO	0.344	7.13	0.349	0.363	0.302	0.367	0.352	0.328	1.00	0.00	0.373	-0.01
	1,2-Dichloropropane (CCC)	QO	0.310	6.35	0.321	0.324	0.290	0.334	0.286	0.302	1.00	0.00	0.336	-0.01
	Bromodichloromethane	QO	0.410	15.4	0.436	0.455	0.299	0.476	0.385	0.407	1.00	0.00	0.469	-0.02
	Dibromomethane	QO	0.186	10.5	0.184	0.200	0.162	0.215	0.183	0.170	1.00	0.00	0.205	-0.01
	cis-1,3-Dichloropropene	QO	0.449	25.7	0.516	0.530	0.234	0.515	0.399	0.499	1.00	0.00	0.533	-0.01
	Toluene (CCC/MS)	QO	1.250	7.06	1.234	1.336	1.174	1.352	1.276	1.130	1.00	0.00	1.373	-0.06
	trans-1,3-Dichloropropene	QO	0.378	29.2	0.445	0.446	0.174	0.440	0.326	0.437	1.00	0.00	0.448	0.00
	1,1,2-Trichloroethane	LO	0.208	20.1	0.216	0.214	0.132	0.260	0.222	0.205	1.00	0.00	0.208	0.00
	Tetrachloroethene	QO	0.384	11.8	0.380	0.412	0.327	0.436	0.416	0.334	1.00	0.00	0.435	-0.03
	1,3-Dichloropropane	LO	0.481	9.76	0.463	0.506	0.436	0.559	0.483	0.437	1.00	0.00	0.447	0.00
	CHLOROBENZENE-D5 (I)	I			100.0	60.00	1.000	20.00	10.00	200.0				
	4-BROMOFLUOROBENZENE (S)	A	0.576	1.84	0.583	0.583	0.559	0.571	0.588	0.574				
	trans-1,4-Dichloro-2-butene (*	A	0.142	30.9	0.157	0.154	0.056	0.178	0.140	0.165				
	Dibromochloromethane	QO	0.480	17.0	0.507	0.528	0.326	0.557	0.461	0.499	1.00	0.00	0.527	-0.01
	1,2-Dibromoethane	QO	0.482	10.8	0.504	0.507	0.403	0.555	0.456	0.467	1.00	0.00	0.535	-0.02
	Chlorobenzene (SPCC/MS)	QO	1.526	8.67	1.533	1.602	1.351	1.714	1.554	1.404	1.00	0.00	1.676	-0.07
	1,1,1,2-Tetrachloroethane	QO	0.560	20.3	0.594	0.602	0.353	0.694	0.578	0.536	1.00	0.00	0.646	-0.03
	Ethylbenzene (CCC)	QO	2.702	9.35	2.722	2.842	2.392	3.079	2.723	2.456	1.00	0.00	3.002	-0.14
	p,m-Xylene	QO	0.932	8.58	0.909	0.984	0.921	1.051	0.915	0.813	1.00	0.00	1.029	-0.05
	o-Xylene	QO	2.170	10.5	2.184	2.276	1.895	2.479	2.272	1.916	1.00	0.00	2.447	-0.13
	Styrene	QO	1.402	11.5	1.440	1.515	1.127	1.580	1.427	1.320	1.00	0.00	1.576	-0.06
	Isopropylbenzene	QO	2.420	9.20	2.517	2.571	2.149	2.721	2.365	2.199	1.00	0.00	2.781	-0.15
	Bromoform (SPCC)	A	0.341	9.47	0.346	0.332		0.387	0.297	0.341				
	1,1,2,2-Tetrachloroethane (SPC	LO	0.528	11.0	0.507	0.513	0.468	0.624	0.568	0.487	1.00	0.00	0.494	0.00
	1,2,3-Trichloropropane	A	0.167	17.6	0.163	0.166	0.129	0.219	0.169	0.155				
	n-Propylbenzene	A	2.886	9.57	2.961	2.989	2.533	3.272	2.967	2.594				
	Bromobenzene	QO	0.599	11.9	0.612	0.633	0.503	0.702	0.606	0.536	1.00	0.00	0.684	-0.04
	1,3,5-Trimethylbenzene	QO	2.082	11.1	2.050	2.165	1.923	2.390	2.222	1.740	1.00	0.00	2.360	-0.16
	tert-Butylbenzene	A	2.006	15.4	2.072	2.167	1.575	2.437	2.047	1.739				
	1,2,4-Trimethylbenzene	QO	2.039	7.86	2.014	2.156	1.968	2.242	2.073	1.781	1.00	0.00	2.274	-0.12
	1,4-DICHLOROBENZENE-D4 (I)	I			100.0	60.00	1.000	20.00	10.00	200.0				
	sec-Butylbenzene	QO	3.482	11.0	3.734	3.802	2.827	3.798	3.283	3.449	1.00	0.00	3.965	-0.13

Form 6: Initial Calibration Data

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	Compound	Fit	<RF>	%RSD	RF(1)	RF(2)	RF(3)	RF(4)	RF(5)	RF(6)	COD	k(0)	k(1)	k(2)
fl031209.m	p-Isopropyltoluene	QO	2.755	9.08	2.808	2.967	2.378	3.056	2.575	2.745	1.00	0.00	2.954	-0.05
	1,3-Dichlorobenzene	QO	1.527	4.33	1.494	1.540	1.520	1.652	1.467	1.491	1.00	0.00	1.534	-0.01
	1,4-Dichlorobenzene	QO	1.484	5.51	1.438	1.500	1.392	1.625	1.511	1.439	1.00	0.00	1.488	-0.01
	1,2-Dichlorobenzene	QO	1.337	8.40	1.309	1.358	1.198	1.531	1.355	1.270	1.00	0.00	1.382	-0.03
	n-Butylbenzene	QO	2.347	12.7	2.371	2.541	1.785	2.644	2.397	2.346	1.00	0.00	2.505	-0.04
	1,2-Dibromo-3-Chloropropane	A	0.103	16.2	0.104	0.101		0.106	0.079	0.126				
	1,2,4-Trichlorobenzene	QO	0.747	10.6	0.731	0.823	0.609	0.826	0.735	0.757	1.00	0.00	0.771	0.00
	Hexachlorobutadiene	QO	0.498	7.38	0.475	0.480	0.550	0.513	0.522	0.449	1.00	0.00	0.500	-0.01
	Naphthalene	QO	1.291	10.8	1.263	1.368	1.059	1.478	1.315	1.262	1.00	0.00	1.340	-0.02
	1,2,3-Trichlorobenzene	QO	0.614	20.9	0.616	0.685	0.362	0.715	0.663	0.644	1.00	0.00	0.644	0.00
	2-Methylnaphthalene	A	0.319	47.2	0.358	0.401	0.044	0.486	0.341	0.286				

Calibration Date: 12/09/03

Note: See Calibration Raw Data for Calibration Injection Times, File IDs, Area/RT Reports, and TICs

NOTES:

Average RF Fit : A* = <RF>C*
Other Curve Fit: A* = k(0) + k(1)C* + k(2)(C*)^2
Internal Standards are highlighted and the column entries indicate the standard concentraion.

Notation: A*=As/Ai (normalized peak area/height)
C*=Cs/Ci (normalized concentration)

Calibration (1): fl031209.m (Mean %RSD: 12.22)

Form 7a: System Performance Compounds Check

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia
Initial Calibration Date: (see Form 6)

Analytical Batch: 031222al.1
Heated Purge: Yes

Filename	*Run Time*	*SPCC Compound*	*SPCC RF*	*RF LCL*
spcc22a.d	12/22/03 13:16	1,1,2,2-Tetrachloroethane	0.454	0.30
		Bromoform	0.317	0.10
		Chlorobenzene	1.429	0.30
		Chloromethane	0.515	0.10
		1,1-Dichloroethane	0.873	0.10
spcc23a.d	12/23/03 00:03	1,1,2,2-Tetrachloroethane	0.559	0.30
		Bromoform	0.358	0.10
		Chlorobenzene	1.537	0.30
		Chloromethane	0.553	0.10
		1,1-Dichloroethane	0.910	0.10

NOTES

*: Performance compound RF below method-established control limit

Form 7b: Calibration Check Compounds

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia
Initial Calibration Date: (see Form 6)

Analytical Batch: 031222al.1
Heated Purge: Yes
Concentration Units: ug/L

Filename	*Run Time*	*CCC Compound*	*Found/Spiked Concentration*	*CCC %D/UCL*
spcc22a.d	12/22/03 13:16	Chloroform	21.9/ 25.0	12.4/ 20.0
		1,1-Dichloroethene	22.9/ 25.0	8.5/ 20.0
		1,2-Dichloropropane	22.4/ 25.0	10.5/ 20.0
		Ethylbenzene	23.2/ 25.0	7.1/ 20.0
		Toluene	23.1/ 25.0	7.4/ 20.0
		Vinyl Chloride	21.4/ 25.0	14.3/ 20.0
spcc23a.d	12/23/03 00:03	Chloroform	23.6/ 25.0	5.7/ 20.0
		1,1-Dichloroethene	24.1/ 25.0	3.6/ 20.0
		1,2-Dichloropropane	23.6/ 25.0	5.7/ 20.0
		Ethylbenzene	25.2/ 25.0	0.6/ 20.0
		Toluene	25.4/ 25.0	1.4/ 20.0
		Vinyl Chloride	24.8/ 25.0	0.6/ 20.0

NOTES

*: Calibration check drift outside of method-established control limits

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.l
Heated Purge: Yes

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
spcc22a.d	12/22/03 13:16	Pentafluorobenzene	686375/ 7.27	343188- 1372750	6.77- 7.77
		1,4-Difluorobenzene	1099321/ 8.26	549661- 2198642	7.76- 8.76
		Chlorobenzene-D5	560125/12.79	280063- 1120250	12.29-13.29
		1,4-Dichlorobenzene-D4	431157/17.22	215579- 862314	16.72-17.72
w-22a.d	12/22/03 13:50	Pentafluorobenzene	681716/ 7.26	Ratio: 0.993	Diff.: -0.01
		1,4-Difluorobenzene	1071312/ 8.26	Ratio: 0.975	Diff.: 0.00
		Chlorobenzene-D5	552729/12.79	Ratio: 0.987	Diff.: 0.00
		1,4-Dichlorobenzene-D4	428774/17.22	Ratio: 0.994	Diff.: 0.00
blk-w22a.d	12/22/03 14:24	Pentafluorobenzene	664545/ 7.26	Ratio: 0.968	Diff.: -0.01
		1,4-Difluorobenzene	1075316/ 8.26	Ratio: 0.978	Diff.: 0.00
		Chlorobenzene-D5	540082/12.79	Ratio: 0.964	Diff.: 0.00
		1,4-Dichlorobenzene-D4	402650/17.22	Ratio: 0.934	Diff.: 0.00
1555102.d	12/22/03 14:58	Pentafluorobenzene	652307/ 7.26	Ratio: 0.950	Diff.: -0.01
		1,4-Difluorobenzene	1102040/ 8.26	Ratio: 1.002	Diff.: 0.00
		Chlorobenzene-D5	547806/12.79	Ratio: 0.978	Diff.: 0.00
		1,4-Dichlorobenzene-D4	406459/17.22	Ratio: 0.943	Diff.: 0.00
1555107.d	12/22/03 15:32	Pentafluorobenzene	630950/ 7.26	Ratio: 0.919	Diff.: -0.01
		1,4-Difluorobenzene	1048603/ 8.26	Ratio: 0.954	Diff.: 0.00
		Chlorobenzene-D5	538605/12.79	Ratio: 0.962	Diff.: 0.00
		1,4-Dichlorobenzene-D4	385404/17.22	Ratio: 0.894	Diff.: 0.00
1556807.d	12/22/03 16:06	Pentafluorobenzene	694159/ 7.26	Ratio: 1.011	Diff.: -0.01
		1,4-Difluorobenzene	1129234/ 8.26	Ratio: 1.027	Diff.: 0.00
		Chlorobenzene-D5	552589/12.78	Ratio: 0.987	Diff.: -0.01
		1,4-Dichlorobenzene-D4	412656/17.22	Ratio: 0.957	Diff.: 0.00
1555102r.d	12/22/03 16:41	Pentafluorobenzene	642145/ 7.26	Ratio: 0.936	Diff.: -0.01
		1,4-Difluorobenzene	1068983/ 8.26	Ratio: 0.972	Diff.: 0.00
		Chlorobenzene-D5	511525/12.79	Ratio: 0.913	Diff.: 0.00
		1,4-Dichlorobenzene-D4	387630/17.22	Ratio: 0.899	Diff.: 0.00
1555107r.d	12/22/03 17:15	Pentafluorobenzene	646063/ 7.26	Ratio: 0.941	Diff.: -0.01
		1,4-Difluorobenzene	1065097/ 8.25	Ratio: 0.969	Diff.: -0.01
		Chlorobenzene-D5	514341/12.79	Ratio: 0.918	Diff.: 0.00
		1,4-Dichlorobenzene-D4	377888/17.22	Ratio: 0.876	Diff.: 0.00
1546101.d	12/22/03 18:21	Pentafluorobenzene	707625/ 7.26	Ratio: 1.031	Diff.: -0.01
		1,4-Difluorobenzene	1119448/ 8.25	Ratio: 1.018	Diff.: -0.01
		Chlorobenzene-D5	552918/12.79	Ratio: 0.987	Diff.: 0.00
		1,4-Dichlorobenzene-D4	423944/17.21	Ratio: 0.983	Diff.: -0.01
1546102.d	12/22/03 18:54	Pentafluorobenzene	674249/ 7.25	Ratio: 0.982	Diff.: -0.02
		1,4-Difluorobenzene	1073113/ 8.25	Ratio: 0.976	Diff.: -0.01
		Chlorobenzene-D5	556443/12.78	Ratio: 0.993	Diff.: -0.01
		1,4-Dichlorobenzene-D4	429384/17.22	Ratio: 0.996	Diff.: 0.00
1546103.d	12/22/03 19:29	Pentafluorobenzene	675835/ 7.25	Ratio: 0.985	Diff.: -0.02
		1,4-Difluorobenzene	1067362/ 8.25	Ratio: 0.971	Diff.: -0.01
		Chlorobenzene-D5	545161/12.78	Ratio: 0.973	Diff.: -0.01
		1,4-Dichlorobenzene-D4	406850/17.21	Ratio: 0.944	Diff.: -0.01
1546104.d	12/22/03 20:03	Pentafluorobenzene	642178/ 7.26	Ratio: 0.936	Diff.: -0.01
		1,4-Difluorobenzene	1062481/ 8.25	Ratio: 0.966	Diff.: -0.01
		Chlorobenzene-D5	539672/12.78	Ratio: 0.963	Diff.: -0.01
		1,4-Dichlorobenzene-D4	400749/17.22	Ratio: 0.929	Diff.: 0.00
1546105.d	12/22/03 20:37	Pentafluorobenzene	559815/ 7.26	Ratio: 0.816	Diff.: -0.01
		1,4-Difluorobenzene	911001/ 8.25	Ratio: 0.829	Diff.: -0.01
		Chlorobenzene-D5	425101/12.79	Ratio: 0.759	Diff.: 0.00
		1,4-Dichlorobenzene-D4	314693/17.22	Ratio: 0.730	Diff.: 0.00
1546106.d	12/22/03 21:11	Pentafluorobenzene	549507/ 7.26	Ratio: 0.801	Diff.: -0.01
		1,4-Difluorobenzene	868012/ 8.25	Ratio: 0.790	Diff.: -0.01
		Chlorobenzene-D5	429811/12.78	Ratio: 0.767	Diff.: -0.01
		1,4-Dichlorobenzene-D4	292826/17.22	Ratio: 0.679	Diff.: 0.00

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.1
Heated Purge: Yes

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
1546106d.d	12/22/03 21:45	Pentafluorobenzene	586649/ 7.26	Ratio: 0.855	Diff.: -0.01
		1,4-Difluorobenzene	915611/ 8.25	Ratio: 0.833	Diff.: -0.01
		Chlorobenzene-D5	464211/12.78	Ratio: 0.829	Diff.: -0.01
		1,4-Dichlorobenzene-D4	324525/17.22	Ratio: 0.753	Diff.: 0.00
1546106m.d	12/22/03 22:20	Pentafluorobenzene	546252/ 7.26	Ratio: 0.796	Diff.: -0.01
		1,4-Difluorobenzene	910962/ 8.26	Ratio: 0.829	Diff.: 0.00
		Chlorobenzene-D5	423429/12.78	Ratio: 0.756	Diff.: -0.01
		1,4-Dichlorobenzene-D4	305649/17.22	Ratio: 0.709	Diff.: 0.00
lcs-w22a.d	12/22/03 22:54	Pentafluorobenzene	652980/ 7.26	Ratio: 0.951	Diff.: -0.01
		1,4-Difluorobenzene	1064499/ 8.26	Ratio: 0.968	Diff.: 0.00
		Chlorobenzene-D5	528237/12.78	Ratio: 0.943	Diff.: -0.01
		1,4-Dichlorobenzene-D4	399002/17.22	Ratio: 0.925	Diff.: 0.00
spcc23a.d	12/23/03 00:03	Pentafluorobenzene	599784/ 7.27	299892- 1199568	6.77- 7.77
		1,4-Difluorobenzene	991369/ 8.26	495685- 1982738	7.76- 8.76
		Chlorobenzene-D5	503514/12.79	251757- 1007028	12.29-13.29
		1,4-Dichlorobenzene-D4	371570/17.22	185785- 743140	16.72-17.72
w-23a.d	12/23/03 00:37	Pentafluorobenzene	623192/ 7.26	Ratio: 1.039	Diff.: -0.01
		1,4-Difluorobenzene	1055390/ 8.26	Ratio: 1.065	Diff.: 0.00
		Chlorobenzene-D5	510390/12.79	Ratio: 1.014	Diff.: 0.00
		1,4-Dichlorobenzene-D4	372276/17.23	Ratio: 1.002	Diff.: 0.01
1552105.d	12/23/03 01:12	Pentafluorobenzene	634415/ 7.27	Ratio: 1.058	Diff.: 0.00
		1,4-Difluorobenzene	1059218/ 8.26	Ratio: 1.068	Diff.: 0.00
		Chlorobenzene-D5	525438/12.79	Ratio: 1.044	Diff.: 0.00
		1,4-Dichlorobenzene-D4	374827/17.22	Ratio: 1.009	Diff.: 0.00
1552106.d	12/23/03 01:46	Pentafluorobenzene	626190/ 7.26	Ratio: 1.044	Diff.: -0.01
		1,4-Difluorobenzene	1047880/ 8.26	Ratio: 1.057	Diff.: 0.00
		Chlorobenzene-D5	535067/12.79	Ratio: 1.063	Diff.: 0.00
		1,4-Dichlorobenzene-D4	363501/17.23	Ratio: 0.978	Diff.: 0.01
1552107.d	12/23/03 02:20	Pentafluorobenzene	624268/ 7.27	Ratio: 1.041	Diff.: 0.00
		1,4-Difluorobenzene	1026069/ 8.26	Ratio: 1.035	Diff.: 0.00
		Chlorobenzene-D5	510698/12.79	Ratio: 1.014	Diff.: 0.00
		1,4-Dichlorobenzene-D4	378215/17.22	Ratio: 1.018	Diff.: 0.00
1548101.d	12/23/03 02:55	Pentafluorobenzene	653119/ 7.27	Ratio: 1.089	Diff.: 0.00
		1,4-Difluorobenzene	1074066/ 8.26	Ratio: 1.083	Diff.: 0.00
		Chlorobenzene-D5	532990/12.79	Ratio: 1.059	Diff.: 0.00
		1,4-Dichlorobenzene-D4	387972/17.23	Ratio: 1.044	Diff.: 0.01
1548102.d	12/23/03 03:29	Pentafluorobenzene	600008/ 7.27	Ratio: 1.000	Diff.: 0.00
		1,4-Difluorobenzene	1038808/ 8.27	Ratio: 1.048	Diff.: 0.01
		Chlorobenzene-D5	502117/12.80	Ratio: 0.997	Diff.: 0.01
		1,4-Dichlorobenzene-D4	364631/17.23	Ratio: 0.981	Diff.: 0.01
1548103.d	12/23/03 04:03	Pentafluorobenzene	626081/ 7.27	Ratio: 1.044	Diff.: 0.00
		1,4-Difluorobenzene	1006073/ 8.27	Ratio: 1.015	Diff.: 0.01
		Chlorobenzene-D5	500696/12.79	Ratio: 0.994	Diff.: 0.00
		1,4-Dichlorobenzene-D4	353640/17.24	Ratio: 0.952	Diff.: 0.02
1548104.d	12/23/03 04:38	Pentafluorobenzene	624160/ 7.27	Ratio: 1.041	Diff.: 0.00
		1,4-Difluorobenzene	1022994/ 8.27	Ratio: 1.032	Diff.: 0.01
		Chlorobenzene-D5	512736/12.79	Ratio: 1.018	Diff.: 0.00
		1,4-Dichlorobenzene-D4	348728/17.24	Ratio: 0.939	Diff.: 0.02
1548105.d	12/23/03 05:12	Pentafluorobenzene	598892/ 7.27	Ratio: 0.999	Diff.: 0.00
		1,4-Difluorobenzene	1022516/ 8.27	Ratio: 1.031	Diff.: 0.01
		Chlorobenzene-D5	493132/12.80	Ratio: 0.979	Diff.: 0.01
		1,4-Dichlorobenzene-D4	341679/17.24	Ratio: 0.920	Diff.: 0.02
1557501.d	12/23/03 05:46	Pentafluorobenzene	568469/ 7.27	Ratio: 0.948	Diff.: 0.00
		1,4-Difluorobenzene	991133/ 8.27	Ratio: 1.000	Diff.: 0.01
		Chlorobenzene-D5	489279/12.79	Ratio: 0.972	Diff.: 0.00
		1,4-Dichlorobenzene-D4	331426/17.24	Ratio: 0.892	Diff.: 0.02

Form 8: Internal Standard Area and Retention Time Summary

GC Column: VOCOL/L:60m/D:0.53mm
Instrument ID: vol.01.Phyrexia

Analytical Batch: 031222al.l
Heated Purge: Yes

Filename	Run Time	ISD Compound	Area/RT	Area Range	RT Range
1557502.d	12/23/03 06:20	Pentafluorobenzene	602408/ 7.27	Ratio: 1.004	Diff.: 0.00
		1,4-Difluorobenzene	996324/ 8.26	Ratio: 1.005	Diff.: 0.00
		Chlorobenzene-D5	476984/12.81	Ratio: 0.947	Diff.: 0.02
		1,4-Dichlorobenzene-D4	340815/17.24	Ratio: 0.917	Diff.: 0.02
1557503.d	12/23/03 06:55	Pentafluorobenzene	624152/ 7.28	Ratio: 1.041	Diff.: 0.01
		1,4-Difluorobenzene	1020716/ 8.27	Ratio: 1.030	Diff.: 0.01
		Chlorobenzene-D5	498380/12.80	Ratio: 0.990	Diff.: 0.01
		1,4-Dichlorobenzene-D4	346093/17.24	Ratio: 0.931	Diff.: 0.02
1552107r.d	12/23/03 10:14	Pentafluorobenzene	643420/ 7.28	Ratio: 1.073	Diff.: 0.01
		1,4-Difluorobenzene	1040424/ 8.27	Ratio: 1.049	Diff.: 0.01
		Chlorobenzene-D5	498957/12.80	Ratio: 0.991	Diff.: 0.01
		1,4-Dichlorobenzene-D4	422994/17.24	Ratio: 1.138	Diff.: 0.02

KEY:
[Area/RT]: Absolute area (counts) and absolute retention time (minutes) of internal standard
[Area Range]: 50% to 200% of relative internal standard area
[RT Range]: +/- 0.5 minutes of relative internal standard RT
[Ratio]: Ratio of internal standard areas
[Diff]: Difference in internal standard retention times (minutes)

CONTROL LIMITS:
Area UCL/LCL = 50% to 200% of internal standard area
RT UCL/LCL = +/- 0.5 minutes of internal standard RT

APPENDIX B

BORRING LOGS AND FIELD NOTES

WESTON

SHEET 1 of 2

CLIENT/SUBJECT GM Linden Rd W.O. NO.

TASK DESCRIPTION Geoprobe / Scheduled GW Sampling TASK NO.

PREPARED BY DEPT DATE 11/6/03

MATH CHECK BY DEPT DATE

METHOD REV. BY DEPT DATE

APPROVED BY

DEPT DATE

0700 WESTON (Kirk Lapham, Ken McRowe) on site and begin set up for groundwater sampling @ existing wells. & methane monitoring

0730 KJ McRowe starts methane monitoring. K. Lapham checks flags placed on Monday (11/3/03) marking Geoprobe locations to be completed today.

0745 All flags are still in place marking locations. GP 13 was moved to the south of the fence line on Monday after discussion w/ Babu (WESTON) for access issues in the wooded area. GP-15 was not marked for same reason, WESTON will consult w/ Young's Environmental (Driller) about access for location GP-15.

0950 Collect groundwater sample from GP-13 3 Dup.

1000 Attempt to move to GP-14, Geoprobe (Truck mnt) stuck @ GP-13 due to heavy rain earlier in the week Speak to Babu, states to call Bob Metcalf (GM) to discuss situation. Speak to Bob Metcalf by phone states that WESTON & Youngs should not attempt GP-14 due to possibility of getting stuck & damaging the lawn next door to the site.

1030 WESTON & Young's (Scott Smith) inspect locations in & around the site to determine if they are reachable w/ the Rig. Standing water is present on the access path leading to the locations. Locations are relatively dry, however Young's is concerned w/ standing water on access path to the locations. Will speak to Babu again when the rig is removed from the current location

1120 Speak to Babu & Bob Metcalf by phone, agree to stop drilling for today, schedule later when dryer. WESTON to continue sampling existing wells

1130 Youngs off site.

1145 Collect sample @ MW-13s. WESTON off site to lunch

1630 All wells on site sampled for VOC, SVOC, PCB, & MT 10 Metals

WESTON

SHEET 2 of 2

CLIENT/SUBJECT _____ W.O. NO. _____

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY

DEPT _____ DATE _____

except MW-07S & PZ-1 due to no water in the wells (dry) one dup collected @ MW-05S and one sample collected @ GP-13 for VOC only & dup collected. Field Blank collected w/ distilled water through bailer. — 1620 WESTON off site, gate locked

RFW 10-05-003/A-5/85

WESTON®

SHEET ____ of ____

CLIENT/SUBJECT _____ W.O. NO. _____

TASK DESCRIPTION _____ TASK NO. _____

PREPARED BY _____ DEPT _____ DATE _____

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY

DEPT _____ DATE _____

0760 Arrive on-site w/ Kirk. Initial site introduction/review of day. Unload equipment. sign HASP

730 Begin walking site to find all wells, marked most flush mount locations but ran out of tape. Two methane wells & two monitoring wells covered in water inside of flushmounts. All other monitoring wells opened to equilibrate w/ atmosphere. Key damaged in one lock (Bcent) may not be able to unlock all locks & reseal all wells.

850 Go to remove water from flushmounts w/ improvised small bailing cup.

910 Cleared out & opened all MW to equilibrate. Retrieved/Delivered acetate liner cutter for Kirk. Begin CGI calibration. Zeroed CGI to air & set O_2. Attached .75% Pentane (50% LEL) and read 60% methane. O_2 of mixture was 15% & O_2 meter read 15%. not able to zero & correct high methane reading so zeroed and noted.

920 Go to sample all methane wells w/ CGI

well	time	% LEL	O_2
M-3	9:23	2	11.5
M-4	9:30	2	15
M-2	9:43	2	8
M-1	9:47	4	1

1060 methane sampling complete. Begin prepping equipment & moving to sample location

1105 Bottles labeled & delivered to first four wells. set up on MW-135. PSI meter has no standards for calibration. Begin sampling. Notes on sampling sheet.

1630 Depart Site

Kenneth A. McKeever
11/6/03

FW 10-05-003/A-5/85

TEMPORARY WELL/MONITOR WELL SAMPLING FIELD DATA SHEET

PROJECT:_____ PROJECT NUMBER:_____

Date	Sample Time	Well ID	Total Depth	Water Level	Well Volume	3 x Well Volume	Purged Volume	pH	Conductivity mv/cm	Temperature	Other: redox mv	Comments
11/6/03	1605	MW 035	13.72	3.38	1.69	5.06	4	6.62	1148	13.21		color: silty brown
							5.0	6.06	1164	13.26		sheen: yes (no)
							6.0	6.05	1179	13.26		odor: yes (no)
Samplers:												Sample Method: Pump (Disp. Bailer
												color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer
												color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer
												color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer
												color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer
												color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer

Casing Factor (dia of casing) = (gal per ft of depth)

2" = 0.163 4" = 0.653 6" = 1.47 8" = 2.61

2" Wells - 5' of water in well, 2.5 gals/3 vols.

Ken McKeave
Kenneth A. McKeave
11/6/03

TEMPORARY WELL/MONITOR WELL SAMPLING FIELD DATA SHEET

PROJECT:_____ PROJECT NUMBER:_____

µS/cm ← second #

Date	Sample Time	Well ID	Total Depth	Water Level	Well Volume	3 x Well Volume	Purged Volume	pH	Conductivity mv/cm	Temperature	Other: redox mv	Comments: 746.9 mm Hg
Thurs 11/6/03	1145	MW-13S	12.35	2.21	1.65	4.96	1	7.29	496	11.94		color: silty brown 0.650
							3.5	5.37	574	12.18		sheen: yes (no) 0.760
							4.0	6.18	651	12.48		odor: yes (no)
							5.0	6.99	704	12.60		
							5.5	6.85	780	12.78		
Samplers:							6	6.50	788	19.94		Sample Method: Pump (Disp. Bailer)
~~Thurs~~ 11/6/03			~~11.34~~	~~1.61~~			7	6.25	846	19.98		color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer
	1250	MW 10S	11.34	1.61	1.59	4.76	3	6.08	954	13.14		color: silty brown
							4	5.86	960	13.21		sheen: yes (no)
							5	6.59	958	13.20		odor: yes (no)
Samplers:												Sample Method: Pump (Disp. Bailer)
Thurs 11/6/03	1335	MW 18S	22.91	18.67	0.69	2.07	1	6.86	1155	11.97		color: clear to silty brown
							2	6.77	1149	11.93		sheen: yes (no)
							2.5	Running Dry - Sample lost				odor: yes (no)
												low recharge
Samplers:								6.77				Sample Method: Pump (Disp. Bailer)
Thurs 11/6/03	1435	MW 01S	16.75	11.84	0.80	2.4	1	709	709	12.05		color: silty brown
							2	6.80	764	12.13		sheen: yes (no)
							3	6.82	762	12.15		odor: yes (no)
Samplers:												Sample Method: Pump (Disp. Bailer)
Thurs 11/6/03	1515	MW 06S	16.18	9.08	1.16	3.47	2.5	6.77	1048	12.04		color: silty (very) brown
							3	6.86	1046	12.07		sheen: yes (no)
							4	6.81	1042	11.97		odor: yes (no)
Samplers:												Sample Method: Pump (Disp. Bailer)

Casing Factor (dia of casing) = (gal per ft of depth)

2" = 0.163 4" = 0.653 6" = 1.47 8" = 2.61

2" Wells - 5' of water in well, 2.5 gals/3 vols.

Kenneth A. McRowe
Kenneth A. McRowe
11/6/03

TEMPORARY WELL/MONITOR WELL SAMPLING FIELD DATA SHEET

PROJECT: Linden Rd PROJECT NUMBER: _____

Date	Sample Time	Well ID / Boring	Total Depth	Water Level	Well Volume	3 x Well Volume	Purged Volume	pH	Conductivity mv/cm	Temperature	Other: redox mv	Comments
11/6/03	950	GP-13	15'				1.5g	7.68	565	11.20		color: silty brown
							2.0g	7.60	566	11.21		sheen: yes (no)
							2.5g	7.57	562	11.18		odor: yes (no)
Samplers: KL		Wall										Sample Method: (Pump) Disp. Bailer peristaltic
11/6/03	1300	MW-105	22.25	18.21		~3g	2.0	6.96	1364	12.09		color: silty brown
							2.5	6.91	1353	12.08		sheen: yes (no)
							3.0	6.90	1345	12.06		odor: yes (no)
							3.5	6.93	1337	12.05		
							4.0	6.92	1339	12.06		
Samplers: KL												Sample Method: Pump Disp. (Bailer)
11/6/03	1430	MW-05S	15.80	6.48	1.52	4.55 ~~5.5~~ ~~2.5~~g	2.0	7.77	793	11.77		color: silty brown
							3.0	7.33	778	11.86		sheen: yes (no)
							4.0	7.19	756	11.82		odor: yes (no)
							5.0	7.16	749	11.79		
							5.3	7.14	747	11.80		
Samplers: KL												Sample Method: Pump Disp. (Bailer)
	1430	MW05S-Dup										color:
												sheen: yes no
												odor: yes no
Samplers: KL												Sample Method: Pump Disp. Bailer
	PZ-1	(Dry)										color:
												sheen: yes no
												odor: yes no
Samplers: KL												Sample Method: Pump Disp. Bailer
	MW-07S	(Dry)										color:
												sheen: yes no
												odor: yes no
Samplers: KL												Sample Method: Pump Disp. Bailer

Casing Factor (dia of casing) = (gal per ft of depth)

2" = 0.163 4" = 0.653 6" = 1.47 8" = 2.61 2" Wells - 5' of water in well, 2.5 gals/3 vols.

7/
15.80
6.48
9.32

22.25
18.21
4.040

OM\PROJECTS\SHARED\FORMS\WELLSAMPLINGTBL.XLS

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: Linden Rd - GM Flint, MI

PAGE NO.: 1 | HOLE NO.: GP13

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
11/6/03	11/6/03	Gourys/Scott	Geoprobe	2"		

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
L. Lapham			

start drilling @ 850

SAMPLE NO.	SAMPLE TYPE	RECOVERY	SAMPLE BLOWS	PID	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASSIFICATION SAMPLE INTERVAL	DESCRIPTION	NOTES
1		48/48		0.0	2	TS			Topsoil, sandy (80%), silt (20%), roots, loose, moist due to rain, no odor	
				0.0	4	ML			2' SILT (ML), some sand (30% fine), gray/brown mottled, dry, semi-cohesive, no odor, trace clay (10%) slightly plastic, trace fine gravel (5%)	
2		48/48		0.0	6	ML			SILT as above, moist to dry, no odor	all logs together - top to left, photo #1
				0.0	8	CL			5.7' CLAY (CL), silty (40%) gray, dry, very hard, no odor, trace fine gravel (10%)	
3		48/48		0.0	10	SP			8' SAND, (SP), fine to med, loose, light brown, wet, no odor	1" PVC screen set 7-12' for attempt @ water sample
				0.0	12	CL			9.4' CLAY, as above, very hard, gray, dry, less silt (15%)	GW silty brown.
									CLAY as above	
									EOB @ 12' bgs	

*ASTM D1586
SS = SPLIT SPOON | ST = SHELBY TUBE
D = DENNISON | C = CORE | CS = CONTINUOUS SAMPLER
CT = CUTTINGS | OT = OTHER

PAGE NO. | HOLE NO.

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

C.O.C. PAGE # 1 OF 1

013150

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Babusukumar
COMPANY: Weston Solutions, Inc
ADDRESS: 750 East Bunker Court
CITY: Vernon Hills | STATE: IL | ZIP CODE: 60061
PHONE NO: 847-918-4000 | FAX NO: 847-918-4055 | P.O. NO.:
E-MAIL ADDRESS: Babu.Babusukumar@WestonSolutions.com | QUOTE NO.:

PROJECT NO./NAME: GM-Linden Rd
SAMPLER(S) - PLEASE PRINT NAME: Kirk Lapham, Ken McRow

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO. | FAX NO. | P.O. NO.

PRESERVATIVE CODE: E A A A
REFRIGERATE (Y/N): Y Y Y Y
BOTTLE TYPE: 1 40 mL VOA | 1 Plastic Metals | 1 Amber SVOC | 1 Amber PCB

SAMPLE TYPE: GW ☒ WW ☐ OIL ☐ SOIL ☐ PRODUCT ☐ SLUDGE ☐ OTHER ____
A = NONE, B = HNO_3, C = H_2SO_4, D = NaOH, E = HCL, F = ____
RUSH ANALYSES ☐ DUE DATE ____
RUSH PICK-UP ☐ APPROVED BY: ____

MERIT LAB NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	# OF BOTTLES	ANALYSES
	11/16/03	1435	MW-01S	5	X X X X VOC, MI 10 Metals, SVOC, PCB
		1605	MW-03S	5	
		1430	MW-05S	5	
		1430	MW-05S Dup	5	
		1510	MW-06S	5	
		1300	MW-10S	5	
		1335	MW-11S	5	
		1250	MW-12S	5	
		1145	MW-13S	5	
		0950	GP-13 7-12	2	VOC only
		0950	GP-13 7-12 Dup	2	
		—	Trip Blank	2	
		—	Field Blank	2	

RELINQUISHED BY: SIGNATURE ☒ SAMPLER	DATE 11/16/03	TIME 1700
RECEIVED BY: SIGNATURE	DATE 11-16-03	TIME 1700
RELINQUISHED BY: SIGNATURE	DATE	TIME
RECEIVED BY: SIGNATURE	DATE	TIME

RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED AT MERIT BY: SIGNATURE		DATE	TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE

WESTON

SHEET 1 of 2

CLIENT/SUBJECT Linden RI GM W.O. NO.

TASK DESCRIPTION Geoprobe 12/9/03 TASK NO.

PREPARED BY K. Lapham DEPT DATE

MATH CHECK BY DEPT DATE

METHOD REV. BY DEPT DATE

APPROVED BY

DEPT DATE

815 WESTON (K. Lapham) onsite. Yards next to site damaged 5 photos taken before entering for Geoprobe work. Youngs (Scott Smith) on site.
830 Set up @ first location.
835 Speak to owner of second house from site. Does not want drilling on his property. Explain that I (K.L.) made error in reading Access map. May contact GM about issue. No samples were collected and drilling was not started. Owner seemed satisfied w/ explanation. Move GP-14 to first property from site.
930 Pump GP 14 dry 7-12' screen in less than 2 minutes. Will allow to recharge and attempt to sample.
945 Collect GW sample @ GP-14. No parameter readings, pumped dry and then recharged for sample
955 Set up and start drilling @ GP-6 from summer 02 investigation to check for groundwater, No sample collected in summer (boring was dry).
1020 GP-6 dry to 12' hard gray clay 4-12', move to GP-8 to retry the location attempted in summer 02
1025 Moist 2" sand layer below topsoil @ GP-8 (1.7' bgs) does not produce water in boring. Continue to 8' bgs
1035 Reach 12' bgs @ GP-8, ~ 8-10" of wet sand from 8' to 8.8' set screen 7-12' to collect sample
1115 Collect sample @ GP-8 7-12' after purging 1.5 g. & collecting parameters. Moving to soiled site.
1130 Speak to Babu (WESTON) by phone about GP-15, 16, 17 GP-15 cannot be accessed. Babu suggests hand auger.
1135 Speak to Scott Smith (Youngs) - will check on hand auger from shop. Also states that he is concerned about access to GP-16, 17. May not be able to get back up hill to roadway after completing the borings
1140 Attempt to contact Babu, no answer.

RFW 10-05-003/A-5/85

WESTON

SHEET 2 of 2

CLIENT/SUBJECT Linden Rd -GW W.O. NO.

TASK DESCRIPTION Geoprobe 12/9/05 TASK NO.

PREPARED BY K. Cadham DEPT DATE

MATH CHECK BY DEPT DATE

METHOD REV. BY DEPT DATE

APPROVED BY

DEPT DATE

1150 Speak to Babu & Jim Innes (MDEQ) about boring locations and hand augering @ GP 15, 16, 17. Decide that hand augering is acceptable and plan to attempt @ all 3 locations. GP 16, 17 will be moved farther East to avoid hand augering on slope in an effort to reach ground water more quickly and better define VC extent. Gauntys is bringing hand auger from Flint shop.

1200 WESTON off site to lunch.

1225 WESTON on site. set up @ GP 17. 45' E of fence w/ hand auger, same line as shown on map

1250 Refusal @ 5' bgs @ GP 17. Some water in the bore will allow to recharge & come back. Move 100' East of GP 17 & start GP 16

1350 Water in GP 16 & 17 @ ~ 4.5' bgs. Hand auger to 9' bgs @ GP 15 w/o water, will speak to Babu and discuss, begin sampling. @ GP 16, 17

1410 GP-16 dry after removing ~1.5 L of water (silty brown). Will allow to recharge and collect sample.

1415 Speak to Babu about GP-15 states to go to ~10' bgs. If not GW do not sample since GP-16 is east of GP-15 w/ relocation.

1430 GP-17 dry after removing ~ 1.3 L of water (silty brown). Will allow to recharge and collect sample.

1500 Complete Sample & Dup from GP-17 after allowing to recharge. Will go 1' deeper @ GP 15

1530 Reach 10' @ GP-15, no water. No sample collected.

1535 Total of 5 samples collected (GP-8, GP-14, GP-16, GP-17, GP-17 Dup)

Depths: GP-8 7-12'
GP-14 7-12'
GP-16 -4.5-5.0 (5' screen to surface ~0.5' of H_2O)
GP-17 4.5-5.0 (" " " " " " ")

WESTON®

SHEET 1 of 1

CLIENT/SUBJECT Linden Rd GM — W.O. NO. _____

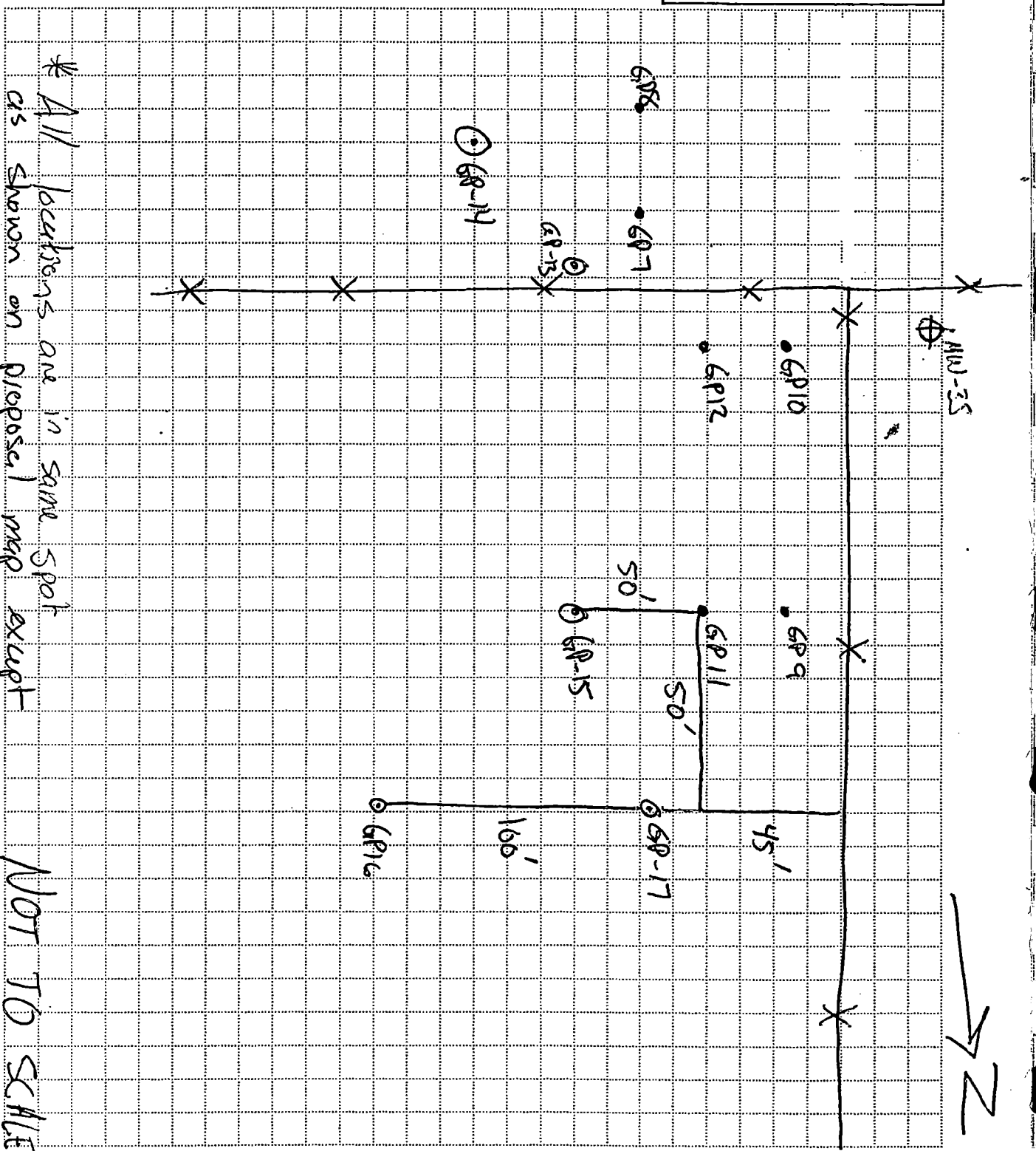
TASK DESCRIPTION Boring Locations — TASK NO. _____

PREPARED BY K. Lapham — DEPT _____ DATE 12/10/03

MATH CHECK BY _____ DEPT _____ DATE _____

METHOD REV. BY _____ DEPT _____ DATE _____

APPROVED BY _____ DEPT _____ DATE _____



* All locations are in same spot as shown on proposed map except GP-17 and GP-16.

NOT TO SCALE

RFW 10-05-003/A-5/85

TEMPORARY WELL/MONITOR WELL SAMPLING FIELD DATA SHEET

PROJECT: GM Linden R2 PROJECT NUMBER:

Date	Sample Time	Well ID	Total Depth	Water Level	Well Volume	3 x Well Volume	Purged Volume	pH	Conductivity mv/cm	Temperature	Other: redox mv	Comments
12/9/03	1115	GP-8	12'		✓	✓	0.6	8.02	352	4.96		color: silty brown
							0.8	8.01	350	6.88		sheen: yes (no)
							1.0	7.86	349	6.83		odor: yes (no)
							1.2	7.80	348	6.78		peristaltic
							1.4	7.78	348	6.76		
Samplers: KL												Sample Method: (Pump) Disp. Bailer
12/9/03	945	GP-14	12'		✓	✓	Pump Dry and Recharge to sample					color:
												sheen: yes (no)
												odor: yes (no)
												peristaltic
Samplers: KL												Sample Method: (Pump) Disp. Bailer
12/9/03	1415	GP-16	5' hand auger		✓	✓	Pump Dry 3 recharge to sample					color:
												sheen: yes (no)
												odor: yes (no)
												peristatic
Samplers: KL												Sample Method: (Pump) Disp. Bailer
12/9/03	1445	GP-17 GP-17 DUP	5' hand auger		✓	✓	Pump Dry & recharge to sample					color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer
												color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer
												color:
												sheen: yes no
												odor: yes no
Samplers:												Sample Method: Pump Disp. Bailer

Casing Factor (dia of casing) = (gal per ft of depth)

2" = 0.163 4" = 0.653 6" = 1.47 8" = 2.61 2" Wells - 5' of water in well, 2.5 gals/3 vols.

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: Linden Rd GM Flint, MI

PAGE NO. | HOLE NO.: | GP-8

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
12/9/03	12/9/03	Jaynes	Geoprobe	2"	—	12

LOGGER	TOP OF CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
KL	—	—	

SAMPLE NO.	SAMPLE TYPE	RECOVERY "	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASSIFICATION SAMPLE	INTERVAL	DESCRIPTION	NOTES
										Blind Drill to 12' to check for water sample 7-12' @ 11:15	

*ASTM D1586 ST = SHELBY TUBE
SS = SPLIT SPOON C = CORE CS = CONTINUOUS SAMPLER
D = DENNISON CT = CUTTINGS OT = OTHER

PAGE NO. | HOLE NO.:

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: Linden Rd GM Flint, MI

PAGE NO.: 1 | HOLE NO.: GP-6

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
12/9/03	12/9/03	Downys	Geoprobe	2"	—	12'

LOGGER	TOP OF CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
KL	—	—	

SAMPLE NO.	SAMPLE TYPE	RECOVERY *	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASSIFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
										Blind Drill to 12' bgs no check for water Dry to 12' bgs, no sample	

*ASTM D1586 ST = SHELBY TUBE
SS = SPLIT SPOON C = CORE CS = CONTINUOUS SAMPLER
D = DENNISON CT = CUTTINGS OT = OTHER

PAGE NO. | HOLE NO.

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: Linden Rd - GM Flint, MI

PAGE NO.: 1 | HOLE NO.: GP-16

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
12/9/03	12/9/03	Youngs	Hand Auger	3"	—	5'

LOGGER	TOP OF CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
KL	—	—	

SAMPLE NO.	SAMPLE TYPE	RECOVERY *	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASS-IFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
										Hand Auger to 5' bgs Collect sample @ 1415	

*ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

PAGE NO. | HOLE NO.

GEOLOGIC DRILL LOG

WESTON

PROJECT NAME AND LOCATION	PAGE NO.	HOLE NO.
Linden Rd GM Flint MI	1	GP-17

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
12/9/03	12/9/03	Young	Hand Auger	3"	—	5'

LOGGER	TOP OF CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER	DATE MEASURED
KL	—	—		

SAMPLE NO.	SAMPLE TYPE	RECOVERY %	SAMPLE BLOWS	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASSIFICATION SAMPLE	INTERVAL	DESCRIPTION	NOTES
										Hand Auger to 5' bgs hit refusal collect sample @ 1415 3 Dup.	

ASTM D1586
ST = SHELBY TUBE
SS = SPLIT SPOON C = CORE CS = CONTINUOUS SAMPLER
D = DENNISON CT = CUTTINGS OT = OTHER

PAGE NO. HOLE NO.

GEOLOGIC DRILL LOG

PROJECT NAME AND LOCATION: Linden Rd GM Flint, MI

PAGE NO.: 1 | HOLE NO.: GP-13

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
12/9/03	12/9/03	Gcurrys	Hand Auger	3"	—	10'

LOGGER	TOP OF CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER - DATE MEASURED
KL	—	—	

SAMPLE NO.	SAMPLE TYPE	RECOVERY *	SAMPLE BLOWS*	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASSIFICATION SAMPLE	INTERVAL	DESCRIPTION	NOTES

Hand Auger to 10' bgs.

Dg

- No sample per Babu.

*ASTM D1586
SS = SPLIT SPOON ST = SHELBY TUBE
D = DENNISON C = CORE CS = CONTINUOUS SAMPLER
CT = CUTTINGS OT = OTHER

PAGE NO. | HOLE NO.

GEOLOGIC DRILL LOG

WESTON

PROJECT NAME AND LOCATION	PAGE NO.	HOLE NO.
Linden Rd GM Flint, MI	1	GP-14

START	FINISH	DRILLER	DRILL METHOD	BOREHOLE DIAMETER	WELL DIAMETER	TOTAL DEPTH
12/9/03	12/9/03	Youngs	Geoprobe	2"	—	12'

LOGGER	TOP of CASING ELEV.	GROUND ELEVATION	DEPTH/ELEVATION GROUNDWATER · DATE MEASURED
KL	—	—	

SAMPLE NO.	SAMPLE TYPE	RECOVERY ·	SAMPLE BLOWS	ELEV	DEPTH	GRAPHIC LOG	WELL CONSTRUCTION	CLASSIFICATION	SAMPLE INTERVAL	DESCRIPTION	NOTES
		← 54"/48			2		0.0	TS		Topsoil, black sandy, moist some gravel, no odor, loose.	
							0.0	SP		2' Sand (SP), silty (35%) brownish-gray, trace gravel, no odor, loose,	
					4					-3.6' As above, little clay, mottled brown/gray, firm	0.0 ppm in breathing zone
		first 10"/48					0.0			Poor recovery 4-8' due to rock. As above, Silty sand, little clay mottled, firm.	
		second 48"/48"			6		0.0	CL		* Second attempt 4-8' silty sand as above to 4.9'	
					8			SP		4.9'-8' clay (CL), gray, dry, hard, trace gravel, no odor SAND (SP) brown, med, loose, wet, no odor -8.7' Clay (CL) as above, hard, dry.	
		48"/48"			10		0.0	CL		CLAY (LL) as above	Set 5' screen 7-12'
					12		00			EOB @ 12' bgs	
					14						Photo 6 all cores top to left.

ASTM D1586 — SS = SPLIT SPOON, ST = SHELBY TUBE, C = CORE, CS = CONTINUOUS SAMPLER, D = DENNISON, CT = CUTTINGS, OT = OTHER

Continuous Sample Track Mount

Geoprobe

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-6333

C.O.C. PAGE # 1 OF 1

018510

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Babusukumar / WESTON
COMPANY: Weston Solutions, Inc
ADDRESS: 750 Banker Court Suite 100
CITY: Vernon Hills | STATE: IL | ZIP CODE: 60061
PHONE NO.: 847 918 4000 | FAX NO.: 847 918 4055 | P.O. NO.:
E-MAIL ADDRESS: Babu.Babusukumar@westonsolutions.com | QUOTE NO.:

PROJECT NO./NAME: GM Linden Rd
SAMPLER(S) - PLEASE PRINT NAME: Kirk Lapham

INVOICE TO

CONTACT NAME | ☒ SAME
COMPANY: SAME
ADDRESS
CITY | STATE | ZIP CODE
PHONE NO. | FAX NO. | P.O. NO.

PRESERVATIVE CODE: E
REFRIGERATE (Y/N): Y
BOTTLE TYPE: VOA 2 40mL

SAMPLE TYPE: GW ☒ | WW ☐ | OIL ☐ | SOIL ☐ | PRODUCT ☐ | SLUDGE ☐ | OTHER ____
RUSH ANALYSES ☐ DUE DATE ____
RUSH PICK-UP ☐ APPROVED BY: ____

A = NONE
B = HNO_3
C = H_2SO_4
D = NaOH
E = HCL
F = ____

MERIT LAB NO.	SAMPLE COLLECTION YEAR: DATE	TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	# OF BOTTLES	ANALYSES
	12/9/03	945	GP-14 7-12	2	X VOC
	12/9/03	1115	GP-8 7-12	2	X VOC
	—	—	Trip Blank	1	X VOC
	12/9/03	1115	GP-16 4.5-5.0	2	X VOC
	12/9/03	1445	GP-17 4.5-5.0	2	X VOC
	12/9/03	1445	GP-17 4.5-5.0 DUP	2	X VOC

RELINQUISHED BY: SIGNATURE	☒ SAMPLER	DATE 12/10/03	TIME 0815
RECEIVED BY: SIGNATURE		DATE	TIME
RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED BY: SIGNATURE		DATE	TIME

RELINQUISHED BY: SIGNATURE		DATE	TIME
RECEIVED AT MERIT BY: SIGNATURE		DATE 12-10-03	TIME 0808

SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL ____
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ACCEPTANCE OF TERMS & CONDITIONS ON REVERSE SIDE