Revitalizing Auto Communities
Environmental Response Trust

February 28, 2024

U.S. EPA Region 5
Remediation and Reuse Branch
Land and Chemicals Division, LU-9J
77 West Jackson Blvd.
Chicago, IL 60604-3590
Attn: Eric Leitz

RE: 2023 Groundwater Monitoring Report
RACER Trust Moraine Facilities
Moraine, Ohio

Dear Mr. Leitz:

The Revitalizing Auto Communities Environmental Response Trust (RACER Trust) is providing this 2023 Groundwater Monitoring Report for the RACER Trust Moraine Facilities in Moraine, Ohio. This report presents the groundwater monitoring activities conducted to assess the performance of the current corrective measures completed in 2023 at the following facilities located in Moraine, Ohio: former Delphi Harrison Thermal Systems Moraine Plant; former General Motors Corporation Powertrain Group, Moraine Engine Plant; and former General Motors Corporation Truck Group, Moraine Assembly Plant.

If you have any questions, please contact me at (937) 751-8635.

Sincerely,

Pamela L. Barnett

Pamela L. Barnett, PG
Cleanup Manager (DE, LA, MA, OH, PA, VA)
RACER Trust

cc: R. Miller and B. Moore, Montgomery County
M. Davis, City of Moraine
M. Juhola, Copart Inc.
M. Carrocce, R&J Trucking
A. Hou and A. Conn, Fuyao Glass America Inc.
R. Kirkland, A. Taylor, and V. Orr, Ohio EPA
C. Semarjian and C. Salata, Industrial Commercial Properties, LLC
K. Hodnett, Ohio Department of Transportation
T. Scherack, West Carrollton Service Department
M. Emery, GM
M. Ekberg, Miami Conservancy District
A. Wright, Wright Mulch
S. Walzak, J. Lichter and K. Selle, Industrial Realty Group, LLC

RACER Trust

# 2023 Groundwater Monitoring Report

## Former Delphi Harrison Thermal Systems, Moraine Plant

## Former General Motors Powertrain Group, Moraine Engine Plant

## Former General Motors Corporation Truck Group, Moraine Assembly Plant

## Moraine, Ohio

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**Former Delphi Harrison Thermal Systems, Moraine Plant**

**Former General Motors Powertrain Group, Moraine Engine Plant**

**Former General Motors Corporation Truck Group, Moraine Assembly Plant**

**Moraine, Ohio**

February 28, 2024

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# 1 Introduction

This 2023 Groundwater Monitoring Report provides an overview of the interim measure monitoring activities completed in 2023 at the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) Moraine Facilities (formerly General Motors Corporation [former GM Corporation]) located in Moraine, Ohio (Site; **Figure 1**). The facilities included:

- former Delphi Harrison Thermal Systems Moraine Plant (former Delphi Thermal Moraine)
- former General Motors Corporation Powertrain Group, Moraine Engine Plant (former Moraine Engine)
- former General Motors Corporation Truck Group, Moraine Assembly Plant (former Moraine Assembly)

As indicated in the 2022 Groundwater Monitoring Report (Arcadis 2023), the 2023 monitoring activities are summarized in this concise report with tabulated data and select figures. The 2023 monitoring activities were associated with the following United States Environmental Protection Agency (U.S. EPA) approved Site interim measures:

- Enhanced reductive dechlorination (ERD) - The ERD process was implemented to address site-specific volatile organic compound (VOC) impacts at the former Oil House Area and downgradient, diffuse plume at in-situ reactive zones (IRZ) IRZ-1, IRZ-2, IRZ-3 East, IRZ-3 West, and IRZ-4 East (**Figure 2**). Carbon source solution injections have not been completed since the December 2017 (IRZ-4 East) and October 2018 (IRZ-3 East). Monitoring to evaluate continued effectiveness or indications of rebound of site-specific VOC concentrations for the need of additional injections is ongoing.
- Phase 1 Dynamic Groundwater Recirculation (DGR™) - DGR™ involves hydraulic containment of the dissolved-phase, site-specific VOCs near the property boundary at the closed South Settling Lagoon. Hydraulic containment is used in combination with clean water injection to enhance advective flushing by inducing dynamic gradients required to reverse the processes of plume development. The result of addressing site-specific VOCs, specifically tetrachloroethene (PCE) and trichloroethene (TCE) within the downgradient Riverview Plat neighborhood, is to reduce and ultimately eliminate vapor intrusion risk for structures where access for installation of vapor intrusion mitigation systems has not been provided. Phase I DGR™ operation and maintenance activities were summarized in the First and Second Semi-Annual Progress Reports for 2023 (RACER Trust 2023 and 2024).
- Lower aquifer extraction well DN-13 - Extraction well DN-13 is owned by Montgomery County and has been used in a Pump-to-Waste Program since March 1990 in cooperation with former GM Corporation / Motors Liquidation Company (MLC) until March 31, 2011 and continued with RACER Trust. The capture zone interim measure for the lower aquifer consists of continued pumping of DN-13 with discharge to the Great Miami River. Samples at the DN-13 outfall and well flow rate data are collected monthly as a requirement of the National Pollutant Discharge Elimination System (NPDES) permit with the results submitted to the Ohio Environmental Protection Agency (Ohio EPA). Extraction well DN-13 operation and maintenance activities, including re-development, were summarized in the First and Second Semi-Annual Progress Reports for 2023 (RACER Trust 2023 and 2024).

Additional background information associated with the interim measures and groundwater monitoring activities at the Site can be found in the 2021 Groundwater Monitoring Report (Arcadis 2022) and referenced documents therein. Field methodologies and laboratory analytical methods associated with the 2023 groundwater monitoring activities were consistent with those summarized in the 2022 Groundwater Monitoring Report (Arcadis 2023).

**Table 1** summarizes the monitoring wells used for performance monitoring of each of the interim measures and the associated analyses performed on the groundwater samples. **Figure 1** shows the monitoring well network and locations of the interim measures.

Note that groundwater monitoring associated with the closed North and South Settling Lagoons was completed in 2023. Details associated with these activities are summarized in the Supplementary Annual Report (**Appendix A**).

# 2 Performance Monitoring Overview

In September 2023, groundwater was sampled from select monitoring wells to evaluate the presence of site-specific VOCs and the performance of the interim measures at the Site (**Table 1**). **Tables 2** through **4** and **Appendices B** and **C** provide the groundwater monitoring and elevation data for 2023. Groundwater quality data for site-specific VOCs from 1999 through 2023 are provided in **Appendix D**. The following sections provide an overview of the groundwater monitoring activities and performance evaluation for the interim measures at the Site in 2023.

## 2.1 ERD

Carbon solution injections were not completed in 2023. Continued effectiveness of past injections was monitored through the collection of field parameter measurements, biogeochemical indicator parameters, and site-specific VOCs at monitoring wells proximal to IRZ-3 East (GM-2 and GM-21), IRZ-3 West (GM-32), and IRZ-4 East (GM-19S). As in 2022, the IRZ-1 monitoring wells (GM-23, GM-27, GM-28R, and GM-29) were not sampled as this area is located well within the boundaries of the Site, has had a long history of sampling data analysis, and concentrations of site-specific VOCs have been consistent from year to year. **Figure 2** shows the locations of the IRZs and the associated monitoring wells. The following is a summary of observations and conclusions based on a review of the ERD data:

- The target compounds (PCE and TCE) remained largely reduced to daughter products (cis-1,2-DCE and vinyl chloride) and ultimately to end products (ethene and ethane) based on the VOC and light hydrocarbon data (**Tables 2** and **3; Figures 3** and **4**). The exception is at monitoring well GM-2, located further downgradient of IRZ-3 East. Monitoring of this well was completed to evaluate potential increasing concentrations of PCE. However, the PCE concentration in monitoring well GM-2 decreased from 43 micrograms per liter (µg/L) in 2021 to 35 µg/L in 2022, and in 2023 remained consistent at 37 µg/L. Note that these concentrations remain below the residential VISL for PCE of 122 µg/L, and the TCE concentration at this location remained below the MCL and residential VISL.
- No significant changes in anaerobic conditions or treatment effectiveness were observed as a result of the suspension of injections in December 2017 and October 2018.

Groundwater quality monitoring near and downgradient of the reactive zones indicates that the in-situ treatment program continues to be effective at reducing chlorinated VOC concentrations in groundwater via anaerobic reductive dechlorination.

## 2.2 Phase 1 DGR™

Baseline groundwater samples were collected in October 2019 from several monitoring wells upgradient, side-gradient, and downgradient of the Phase 1 DGR™ system to establish baseline groundwater concentrations for site-specific VOCs prior to system startup. The Phase 1 DGR™ system began full-scale operation in October 2019 and continued operation throughout 2023, with periodic shutdowns for maintenance and repair activities.

The DGR™ monitoring network sampled in 2023 includes wells located in four areas of the Site. The general concentration trends for PCE and TCE, the primary vapor intrusion drivers, in the Phase 1 DGR™ performance monitoring wells are discussed below in relation to the four groups with supporting concentration charts provided on **Figure 5**. Note that the concentration charts for PCE and TCE shown on **Figure 5** include: concentrations over the past 7 years (2016 through 2023), if available; the residential VISL concentrations (dashed lines) for TCE (9.9 µg/L) and PCE (122 µg/L); and the monitoring well screen interval for each well, indicated by WT (water table – the shallow portion of the upper aquifer) or TT (top of till – deeper portion of the upper aquifer).

- Upgradient and side-gradient monitoring wells: GM-19S and HR-17
  - Concentrations of PCE and TCE appear generally consistent with previous years, with the PCE concentration in monitoring well HR-17 (200 µg/L) as the only parameter that exceeded the VISLs.
- Phase 1 DGR™ area monitoring wells (upgradient of the neighborhood): W-2-S, W-3-S, W-4-S, RMW-93, and RMW-94
  - Concentrations of both PCE and TCE significantly decreased in W-4-S, RMW-93, and RMW-94 during the first two years of operation of the Phase 1 DGR™ system and have since remained less than the VISLs.
  - The concentration of PCE in monitoring well W-3-S (150 µg/L) increased in 2023 and exceeded the VISL since 2022. In W-2-S, there was an increase in the PCE concentration in 2022 (28 µg/L), but the concentration decreased to 12 µg/L in 2023. Concentration variability in this well may be due to the relatively long screen length (e.g., 40 feet). Samples are collected mid-screen and may represent local concentration variability in comparison to shorter, targeted monitoring well screens. Monitoring well WSU-23, located approximately 235 feet hydraulically downgradient of W-3-S, within the northwest corner of the Riverview Plat neighborhood, and screened at the water table, has a PCE concentration that is below the VISL (37 µg/L). This downgradient well location, along with the water table wells within the Riverview Plat neighborhood (see below) that do not have VISL exceedances, demonstrate the effectiveness of Phase 1 DGR™ for vapor intrusion mitigation.
  - Aside from the increases noted above, concentrations of PCE and TCE for the wells in this group were generally consistent or decreasing, with no other VISL exceedances.
- Riverview Plat neighborhood monitoring wells: GM-47, GM-63, GM-64
  - Concentrations of PCE at GM-63 and GM-64 continued to decrease in 2023 with concentrations of 5.0 µg/L and 3.2 µg/L, respectively.
  - Concentrations of PCE and TCE in monitoring well GM-47 (24 µg/L and 13 µg/L, respectively) decreased since 2022. The TCE concentration in this monitoring well that is set deeper within the upper aquifer exceeds the VISL. Water table monitoring well GM-50 is paired with monitoring well GM-47. Since the water table is more representative of conditions with the potential for vapor intrusion, monitoring well GM-50 was sampled in 2023 for verification. The concentrations of PCE and TCE in GM-50 have been

consistently below the VISLs since 2013 and remained below the VISLs in 2023 (5.1 µg/L and 1.1 µg/L, respectively).
    - Aside from the increases noted above, concentrations of PCE and TCE for the wells in this group were generally consistent, with no other VISL exceedances.

- Downgradient of the Riverview Plat neighborhood monitoring well: GM-51
    - The concentration of PCE (24 µg/L) in this well remained relatively consistent and below the VISL. The concentration of TCE in monitoring well GM-51 decreased to below the VISL in 2022 and remained below the VISL in 2023 (0.86 J µg/L).

Groundwater levels collected at monitoring wells within the upper aquifer in the area of the Phase 1 DGR™ system (**Table 4**) were used to assess the operational hydraulic influence. The groundwater flow for the upper aquifer is generally from northeast to southwest with induced hydraulic gradient control in the Phase 1 DGR™ area (**Figure 6**). The extraction well pumping demonstrates radial flow towards the extraction wells, with radial flow out of the injection wells into the upper aquifer. Additionally, the vertical hydraulic gradient from the shallow portion of the upper aquifer to the deeper portion of the upper aquifer demonstrates an induced downward vertical hydraulic gradient in the vicinity of the extraction wells (**Table 5**). Water levels in the vicinity of the injection wells (IW-1 through IW-4) indicate limited mounding affects.

Groundwater concentration data for monitoring wells in the Phase 1 DGR™ area demonstrate generally decreasing PCE and TCE concentrations downgradient and local to the injection wells (**Figure 5**). In addition, PCE and TCE concentrations within the Riverview Plat neighborhood in the shallow portion of the upper aquifer are below the respective residential VISLs (**Figure 5**). These data, along with the groundwater elevation data summarized above, suggest that the Phase 1 DGR™ interim measure is sufficiently maintaining hydraulic capture of the upper aquifer plume and effectively mitigating the site-specific VOC concentrations downgradient within the Riverview Plat neighborhood.

## 2.3 Lower Aquifer Extraction Well DN-13

Extraction well DN-13 is utilized to capture site-specific VOCs in downgradient and off-site lower aquifer groundwater. Past evaluations to determine the effectiveness of DN-13 used several lines of evidence following the general procedures outlined in A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems (U.S. EPA 2008). With the robust capture zone analyses that followed U.S. EPA guidance for over 9 years, the capture hydraulics in relation to DN-13 operation have been established. In the 2019 Groundwater Monitoring Report (Arcadis 2020), it was recommended that the capture analysis and evaluation of DN-13 data relative to hydraulic control be reduced to every 5 years with continued reporting on operation and maintenance to maintain a flow rate for capture. Specifically, removing the need to evaluate the hydraulics in relation to horizontal hydraulic gradients, statistical analysis of VOC concentrations, calculations, and inferred capture zones. Annual monitoring of local lower aquifer site-specific VOC concentrations at DN-13 was maintained.

Concentrations of site-specific VOCs in DN-13 (**Table 2**) and operational data (RACER Trust 2023 and 2024) were used to compare to past evaluations to confirm conditions as outlined below:

- The run-time average flow rate (pump in operation) for DN-13 in 2023 was approximately 368 gallons per minute (gpm) or 0.53 million gallons per day (MGD), while the average daily rate (total flow volume averaged over the entire year – including downtime) for 2023 was approximately 332 gpm (0.48 MGD). Note that the flow meter was out of operation from September 2 through December 10, 2023. During this time, the pump

was in operation (verified visually and using pressure transducer data), and flow was estimated based on the most recent flow rate collected prior to malfunction (344 gpm). Extraction well DN-13 was operational for 95.7% of 2023, with a shutdown of 15.73 days due to an assumed power surge/outage that caused the circuit breaker to switch off, and replacement of the flow meter (RACER Trust 2023 and 2024).

- The new downhole pump installed in DN-13 in 2022 has capacity limitations due to the depth and maintains a lower flow rate compared to the original pump set-up. The submersible pump depth and lower flow rate are intended to limit the intrusion of formation material from an existing hole in the casing. Currently, the flow rate is maintained at maximum capacity of the pump. Using the operational data and considering the consistent site-specific VOC plume width over the years (Arcadis 2022), the average daily flow rate of 368 gpm (excluding downtime) exceeds the minimum calculated groundwater flow rate required to capture the plume (339 gpm; Arcadis 2020). Therefore, even after incorporating an overly conservative set of parameters as presented in the 2019 Groundwater Monitoring Report (Arcadis 2020), the data suggests that the current operational flow rate of DN-13 is sufficient to capture the lower aquifer plume width.
- In September 2023, the concentrations of PCE and TCE in groundwater from extraction well DN-13 were 1.5 µg/L and 4.7 µg/L, respectively. These concentrations are relatively consistent with the past several years. The other site-specific VOCs were detected at relatively low concentrations or below reporting limits.

The data above indicate that sufficient hydraulic capture within the lower aquifer was achieved. Based on the continued effective performance and proactive operation and maintenance of extraction well DN-13 during 2023, the current pumping program at DN-13 is effective and will continue to be implemented in 2024. A capture analysis will be completed in in 2025 (for the 2024 reporting period) per the recommendations presented in the 2019 report (Arcadis 2020). Flow rate measurements and sampling for site-specific VOC concentrations at DN-13 will be maintained on an annual basis to confirm overall conditions.

# 3 2024 Groundwater Monitoring Program

In 2022, the U.S. EPA issued the Final Decision and Response to comments (U.S. EPA 2022). In response to this milestone towards remedy implementation, a Corrective Measures Implementation (CMI) Work Plan (Arcadis 2023), that included a current Quality Assurance Project Plan (QAPP), was submitted to the U.S. EPA. Approval of the CMI Work Plan was received on February 7, 2024, and progress with source remedy implementation is planned for 2024 and forward. While baseline and performance monitoring activities are planned in association with remedy implementation, those activities will be implemented in accordance with the approved CMI Work Plan and separate from the planned interim measure performance monitoring program in 2024. The remedy performance monitoring program may be combined with the interim measure monitoring program in 2025.

A focused 2024 interim measure performance monitoring program, similar to the one implemented in 2023, is proposed. The program includes monitoring associated with the IRZs, closed North and South Settling Lagoons, Phase 1 DGR™, and extraction well DN-13 (**Table 6**). A concise report with tabulated data and select supporting figures will be used to communicate the results of the 2023 groundwater monitoring program.

# 4 References

Arcadis. 2020. 2019 Groundwater Monitoring Report, RACER Trust, Moraine, Ohio. February 25, 2020.

Arcadis. 2022. 2021 Groundwater Monitoring Report, RACER Trust, Moraine, Ohio. February 28, 2022.

Arcadis. 2023. 2022 Groundwater Monitoring Report, RACER Trust, Moraine, Ohio. February 28, 2023.

Arcadis. 2023. Corrective Measures Implementation Work Plan, Revision 1, RACER Trust Moraine Facilities, Moraine, Ohio. August 25, 2023.

RACER Trust. 2023. First Semi-Annual Progress Report 2023, RACER Trust Moraine Facilities, Moraine, Ohio. July 14, 2023.

RACER Trust. 2024. Second Semi-Annual Progress Report 2023, RACER Trust Moraine Facilities, Moraine, Ohio. January 10, 2024.

U.S. EPA. 2008. A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/003.

U.S. EPA. 2022. Final Decision and Response to Comments. December 9, 2022.

# Tables

# Table 1
# Groundwater Monitoring Program for 2023
# RACER Trust Moraine Facilities
# Moraine, Ohio

## Off-Site DN-13 Capture Zone Performance Monitoring Wells (Annual)

**Lower aquifer monitoring well analyzed for the site-specific list of VOCs[1]:**

| |
|---|
| DN-13 |

## In-Situ Reactive Zone Performance Monitoring Wells – (Annual)

**Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[1] and biogeochemical parameters[2]:**

| | | | |
|---|---|---|---|
| GM-2[3] | GM-19S | GM-21 | GM-32 |

## Closed North and South Settling Lagoon Monitoring Wells (Annual)

**Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[1]:**

| | | | |
|---|---|---|---|
| HR-4 | W-2-N | W-3-N | W-4-N |
| HR-17 | W-2-S | W-3-S | W-4-S |

## Phase I DGR™ Performance Monitoring Wells (Annual)

**Upper aquifer monitoring wells[4] analyzed for the site-specific list of VOCs[1]:**

| | | | | | |
|---|---|---|---|---|---|
| GM-47 | GM-50 | GM-51 | GM-63 | GM-64 | RMW-93 |
| RMW-94 | RMW-99 | RMW-101 | RMW-102 | | WSU-23 |

## Analytical Methods

| Parameter | Analytical Method |
|---|---|
| Site-specific list of VOCs | SW846 8260B |
| Total organic carbon | SW846 9060 |
| Ethane, ethene, methane | AM20GAX |

NOTES:

1 – Site-specific list of VOCs for 2023 includes: benzene, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes.

2 – Biogeochemical parameters include: total organic carbon (TOC), ethane, ethene, and methane.

3 – Monitoring well GM-2 is located further downgradient from IRZ-3 East. Sampled since 2019 to support performance verification.

4 – Includes monitoring wells GM-19S, HR-17, W-2-S, W-3-S, and W-4-S.

Field parameters collected at all monitoring wells (pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and temperature)

**Table 2**
**Summary Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| | | | Phase 1 DGR™ System Performance Monitoring Wells | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Site-Specific Volatile Organic Compounds** | **Units** | **Location ID<br>Date<br>U.S. EPA MCL[1]** | **GM-47<br>9/14/2023<br>Upper Aquifer** | **GM-50<br>9/14/2023<br>Upper Aquifer** | **GM-51<br>9/14/2023<br>Upper Aquifer** | **GM-63<br>9/13/2023<br>Upper Aquifer** | **GM-64<br>9/13/2023<br>Upper Aquifer** | **RMW-93<br>9/13/2023<br>Upper Aquifer** | **RMW-94<br>9/12/2023<br>Upper Aquifer** | **RMW-99<br>9/14/2023<br>Upper Aquifer** | **RMW-101<br>9/14/2023<br>Upper Aquifer** |
| 1,1,1-Trichloroethane | ug/L | 200 | < 1.0 U | 1.2 | 0.75 J | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.67 J | < 1.0 U |
| 1,1-Dichloroethane | ug/L | -- | 0.86 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.50 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.79 J |
| 1,1-Dichloroethene | ug/L | 7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Benzene | ug/L | 5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| cis-1,2-Dichloroethene | ug/L | 70 | 4.9 | 0.54 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | 0.46 J |
| Ethylbenzene | ug/L | 700 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Tetrachloroethene | ug/L | 5 | **24** | **5.1** | **24** | 5.0 | 3.2 | 1.7 | 3.0 | **25** | 0.46 J |
| Toluene | ug/L | 1,000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| trans-1,2-Dichloroethene | ug/L | 100 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Trichloroethene | ug/L | 5 | **13** | 1.1 | 0.86 J | 0.52 J | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Vinyl chloride | ug/L | 2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Xylene (total) | ug/L | 10,000 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U |
| **Total Site-Specific VOCs** | µg/L | -- | 42.76 | 7.94 | 25.61 | 6.16 | 5.44 | 1.7 | 3 | 25.67 | 1.71 |

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
**BOLD** - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) indicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
U - Constituent not detected above laboratory reporting limit shown.
UJ - The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
The Quality Assurance/Quality Control (QA/QC) results for 2023 data are included in Appendix B.

**Table 2**
**Summary Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| | | | Phase 1 DGR™ System Performance Monitoring Wells (Continued) | | DN-13 Performance Monitoring | Downgradient Reactive Zone Performance Monitoring Wells | | | |
|---|---|---|---|---|---|---|---|---|---|
| Site-Specific Volatile Organic Compounds | Units | Location ID<br>Date<br>U.S. EPA MCL[1] | RMW-102<br>9/14/2023<br>Upper Aquifer | WSU-23<br>9/13/2023<br>Upper Aquifer | DN-13<br>9/15/2023<br>Lower Aquifer | GM-02<br>9/15/2023<br>Upper Aquifer | GM-19S<br>9/15/2023<br>Upper Aquifer | GM-21<br>9/15/2023<br>Upper Aquifer | GM-32<br>9/13/2023<br>Upper Aquifer |
| 1,1,1-Trichloroethane | ug/L | 200 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| 1,1-Dichloroethane | ug/L | -- | 0.92 J | 0.64 J | 0.99 J | < 1.0 U | 1.8 | 5.4 | 0.70 J |
| 1,1-Dichloroethene | ug/L | 7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Benzene | ug/L | 5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| cis-1,2-Dichloroethene | ug/L | 70 | 1.1 | 0.86 J | 4.3 | < 1.0 U | 26 | 4.8 | < 1.0 U |
| Ethylbenzene | ug/L | 700 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Tetrachloroethene | ug/L | 5 | **7.1** | **37** | 1.5 | **37** | **5.5** | < 1.0 U | < 1.0 U |
| Toluene | ug/L | 1,000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| trans-1,2-Dichloroethene | ug/L | 100 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.96 J | < 1.0 U |
| Trichloroethene | ug/L | 5 | < 1.0 U | **5.5** | 4.7 | 2.0 | 3.9 | 0.55 J | < 1.0 U |
| Vinyl chloride | ug/L | 2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.74 J | 2.0 | < 1.0 U |
| Xylene (total) | ug/L | 10,000 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U |
| **Total Site-Specific VOCs** | µg/L | -- | 9.12 | 45.2 | 11.49 | 39 | 37.94 | 13.71 | 0.7 |

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
**BOLD** - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) indicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
U - Constituent not detected above laboratory reporting limit shown.
UJ - The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
The Quality Assurance/Quality Control (QA/QC) results for 2023 data are included in Appendix B.

**Table 2**
**Summary Groundwater VOC Analytical Results from Upper/Lower Aquifer Monitoring Wells in 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| | | | Closed South Settling Lagoon Monitoring Wells | | | | Closed North Settling Lagoon Monitoring Wells | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Site-Specific Volatile Organic Compounds** | **Units** | **Location ID<br>Date<br>U.S. EPA MCL[1]** | **HR-17<br>9/12/2023<br>Upper Aquifer** | **W-2-S<br>9/12/2023<br>Upper Aquifer** | **W-3-S<br>9/12/2023<br>Upper Aquifer** | **W-4-S<br>9/12/2023<br>Upper Aquifer** | **HR-04<br>9/11/2023<br>Upper Aquifer** | **W-2-N<br>9/11/2023<br>Upper Aquifer** | **W-3-N<br>9/11/2023<br>Upper Aquifer** | **W-4-N<br>9/11/2023<br>Upper Aquifer** |
| 1,1,1-Trichloroethane | ug/L | 200 | < 5.0 U | 0.70 J | < 5.0 U | 1.0 | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U |
| 1,1-Dichloroethane | ug/L | -- | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 7.5 |
| 1,1-Dichloroethene | ug/L | 7 | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Benzene | ug/L | 5 | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| cis-1,2-Dichloroethene | ug/L | 70 | < 5.0 U | 1.1 | < 5.0 U | < 1.0 U | 0.73 J | 1.7 | 13 | 6.9 |
| Ethylbenzene | ug/L | 700 | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Tetrachloroethene | ug/L | 5 | **200** | **12** | **150** | **22** | < 1.0 U | < 1.0 U | < 1.0 U | 0.55 J |
| Toluene | ug/L | 1,000 | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| trans-1,2-Dichloroethene | ug/L | 100 | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 |
| Trichloroethene | ug/L | 5 | < 5.0 U | **6.3** | < 5.0 U | 1.0 | 0.44 J | 0.55 J | < 1.0 U | **8.7** |
| Vinyl chloride | ug/L | 2 | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 UJ | < 1.0 UJ | 0.71 J- | < 1.0 UJ |
| Xylene (total) | ug/L | 10,000 | < 10 U | < 2.0 U | < 10 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U |
| **Total Site-Specific VOCs** | µg/L | -- | 200 | 20.1 | 150 | 24 | 4.67 | 2.25 | 13.71 | 24.75 |

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
**BOLD** - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) indicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
U - Constituent not detected above laboratory reporting limit shown.
UJ - The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
The Quality Assurance/Quality Control (QA/QC) results for 2023 data are included in Appendix B.

**Table 3**
**Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones**
**RACER Trust**
**Moraine, Ohio**

| Constituents | Units | IRZ-3 West GM-32 9/22/99 | 2/28/00 | 5/30/00 | 9/25/00 | 3/19/01 | 11/12/01 | 12/11/01 | 6/12/02 | 9/20/02 | 5/23/03 | 10/1/03 | 9/14/04 | 10/19/05 | 9/19/06 | 9/18/07 | 9/23/08 | 11/16/09 | 9/27/10 | 9/29/11 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOC** | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon | mg/L | 68 | 1,200 | 2,020 | 2,720 | 1,120 | 320 B | 250 | 240 | 160 | 150 | 170 | 240 J | 300 | 260 | 290 J | 95 | 170 | 260 | 71 |
| **Permanent Gases** | | | | | | | | | | | | | | | | | | | | |
| Methane | mg/L | 2.7 | 7.1 | 15 | 17 | 29 | 29 | 38 | 24 | 32 | 24 | 19 | 25 | 30 J | 26 | 26 | 25 | NA | NA | NA |
| **Light Hydrocarbon Scan** | | | | | | | | | | | | | | | | | | | | |
| Ethane | ng/L | 1,649 | 9,965 | 1,029 | 189 | 7,900 | 42,000 | 72,000 | 84,000 | 94,000 | 74,000 | 46,000 | 57,000 | 85,000 J | 76,000 | 73,000 | 58,000 | NA | NA | NA |
| Ethene | ng/L | 86,509 | 163,855 | 472,312 | 510,593 | 150,000 | 130,000 | 90,000 | 93,000 | 49,000 | 9,900 | 3,400 | 2,000 | 1,900 J | 2,400 | 1,200 | 940 | NA | NA | NA |
| **Field Parameters** | | | | | | | | | | | | | | | | | | | | |
| pH | S.U. | 7.54 | 8.59 | 7.64 | 7.73 | 8.36 | 8.42 | 8.13 | 8.55 | 8.13 | 6.41 | 6.81 | 6.86 | 6.30 | 6.84 | 7.00 | 7.13 | 7.02 | 7.68 | 7.20 |
| Specific Conductivity | umhos/cm | 2,750 | 9,030 | 9,195 | 9,225 | 7,483 | 6,874 | 6,200 | 5,432 | 4,289 | 3,908 | 3,192 | 4,210 | 4,810 | 4,510 | 4,240 | 3,220 | 3,540 | 5,328 | 3,280 |
| Dissolved Oxygen | mg/L | 0.09 | 0.23 | 10.82 | 2.55 | 0.36 | 0.07 | 0.03 | 1.14 | 0.22 | 1.93 | 0.31 | 0.00 | 0.00 | 0.21 | 0.45 | 1.79 | 0.89 | 2.4 | 1.97 |
| Redox Potential | mV | -226.4 | -279.1 | -213.6 | -353.8 | -152.5 | -222.8 | -279 | -220.5 | -227.1 | -204.6 | -154.4 | -160 | -191 | -193 | -161 | -200 | -108 | -236.9 | -244 |
| Temperature | $^{o}$C | 19.27 | 19.72 | 23.48 | 19.27 | 19.3 | 18.84 | 18.62 | 20.83 | 19.81 | 19.31 | 18.47 | 17.20 | 17.00 | 17.70 | 16.70 | 18.71 | 16.30 | 16.79 | 18.77 |

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
$^{o}$C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

**Table 3**
**Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones**
**RACER Trust**
**Moraine, Ohio**

| Constituents | Units | IRZ-3 West GM-32 (Continued) 9/6/12 | 9/26/13 | 10/8/14 | 12/8/15 | 8/17/16 | 8/16/17 | 7/24/18 | 7/11/19 | 7/31/20 | 10/7/21 | 11/10/22 | 9/15/23 | IRZ-3 East GM-21 9/22/99 | 2/23/00 | 5/26/00 | 9/22/00 | 3/19/01 | 11/13/01 | 12/11/01 | 6/12/02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOC** | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon | mg/L | 62 | 40 | 22 | 6.0 | 4.2 | 9.2 | 3.8 | 3.8 | 3.0 | 2.9 | 2.4 | 2.4 | 1.0 | 3.0 | 2.0 | <1.0 U | <1.0 U | 2.0 B | 1.0 | 0.9J |
| **Permanent Gases** | | | | | | | | | | | | | | | | | | | | | |
| Methane | mg/L | NA | NA | NA | NA | NA | NA | NA | NA | 0.42 | 0.41 | 0.27 | 0.0518 | 0.037 | 0.018 | 0.014 | 0.042 | 0.048 | 0.049 | 0.035 | 0.022 |
| **Light Hydrocarbon Scan** | | | | | | | | | | | | | | | | | | | | | |
| Ethane | ng/L | NA | NA | NA | NA | NA | NA | NA | NA | 1,500 | 1,600 | 950 J | < 5,000 U | 72 | 67 | 84 | 72 | 82 | 76 | 120 | 150 |
| Ethene | ng/L | NA | NA | NA | NA | NA | NA | NA | NA | < 1,000 U | < 1,000 U | < 1,000 U | < 5,000 U | 169 | 38 | 70 | 69 | 46 | 46 | 100 | 120 |
| **Field Parameters** | | | | | | | | | | | | | | | | | | | | | |
| pH | S.U. | 7.15 | 8.05 | 7.26 | 7.04 | 6.81 | 6.68 | 7.15 | 7.07 | 7.04 | 7.60 | 7.16 | 5.69 | 6.99 | 7.22 | 7.06 | 7.21 | 7.85 | 7.50 | 7.45 | 7.22 |
| Specific Conductivity | umhos/cm | 1,998 | 1,388 | 1,520 | 1,380 | 1,200 | 1,320 | 1,140 | 870 | 878 | 1,610 | 1,076 | 1,140 | 1,188 | 1,299 | 1,048 | 1,096 | 1,067 | 1,190 | 1,360 | 1,045 |
| Dissolved Oxygen | mg/L | 0.94 | 0.42 | 0.72 | 0 | 7.08 | 6.36 | 0 | 0.69 | 0.6 | 0.48 | 0.40 | 0.28 | 0.66 | 0.60 | 0.40 | 0.99 | 0.57 | 0.04 | 0.04 | 0.63 |
| Redox Potential | mV | -72.8 | -17 | -99 | -165 | -148 | -105 | -167 | -94 | -125.9 | -135 | -138.2 | -129 | -26.9 | 113.3 | 167.1 | 153.9 | 218.5 | 168.8 | -25 | 373.8 |
| Temperature | $^{o}$C | 21.50 | 18.36 | 18.48 | 15.57 | 17.96 | 15.83 | 16.21 | 17.80 | 17.00 | 16.65 | 16.43 | 15.01 | 20.43 | 18.43 | 17.92 | 19.03 | 17.59 | 16.73 | 15.82 | 18.67 |

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
$^{o}$C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

**Table 3**
**Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones**
**RACER Trust**
**Moraine, Ohio**

| Constituents | Units | IRZ-3 East GM-21 (Continued) 9/25/02 | 5/22/03 | 9/24/03 | 9/14/04 | 10/17/05 | 9/20/06 | 9/26/07 | 10/3/08 | 11/16/09 | 9/28/10 | 9/29/11 | 9/7/12 | 9/26/13 | 10/9/14 | 12/11/15 | 8/22/16 | 8/17/17 | 7/25/18 | 7/12/19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOC** | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon | mg/L | 2 | 2 | 2 | 2 J | 92 | 7 | 14 J | 18 | 45 | 91 | 100 | 86 | 120 | 120 | 110 | 94 | 81 | 95 | NA |
| **Permanent Gases** | | | | | | | | | | | | | | | | | | | | |
| Methane | mg/L | 0.03 | 0.031 | 1.5 | 0.077 | 17 | 4.9 | 30 | 28 | 28 | 23 | 15 | 12 | NA | 15 | 17 | 16 | 13 | 15 | 16 |
| **Light Hydrocarbon Scan** | | | | | | | | | | | | | | | | | | | | |
| Ethane | ng/L | 120 | 130 | 30 | 140 | 9,800 | 27,000 | 290,000 J | 77,000 | 71,000 | 50,000 | 21,000 | 7,500 | NA | 6,800 | 6,300 | 6,100 | 6,400 | 7,500 | 4,300 |
| Ethene | ng/L | 64 | 570 | 520 | 250 | 330,000 | 63,000 | 80,000 | 13,000 | 6,700 | 3,600 | 3,100 | 5,800 | NA | 5,400 | 8,100 | 7,000 | 4,600 | 5,700 | 4,400 |
| **Field Parameters** | | | | | | | | | | | | | | | | | | | | |
| pH | S.U. | 7.09 | 6.76 | 7.05 | 7.19 | 6.73 | 6.90 | 6.64 | 6.05 | 6.40 | 6.46 | 6.50 | 6.36 | 6.38 | 7.12 | 6.95 | 6.40 | 6.30 | 6.40 | 6.44 |
| Specific Conductivity | umhos/cm | 1,245 | 968 | 1,181 | 1,180 | 1,640 | 1,580 | 1,870 | 1,405 | 2,088 | 2,424 | 2,974 | 2,511 | 1,373 | 2,853 | 1,280 | 2,560 | 2,340 | 2,350 | 1,740 |
| Dissolved Oxygen | mg/L | 0.41 | 0.83 | 0.75 | 0 | 0 | 0.25 | 0.46 | 0.12 | 0.24 | 3.60 | 0.30 | 0.12 | 0.47 | 0.28 | 0 | 0.64 | 5.08 | NA | 0.81 |
| Redox Potential | mV | 238.1 | 77.1 | -26.7 | -7 | -140 | -137 | -126 | 68 | -92.1 | -95.1 | -13.7 | -12 | 22.6 | -29.3 | -151 | -93 | -76 | -116 | -44 |
| Temperature | $^{o}$C | 18.67 | 17.54 | 18.39 | 17.1 | 16.4 | 16.94 | 17.2 | 16.5 | 16.32 | 16.65 | 23.00 | 22.90 | 23.70 | 16.40 | 16.37 | 17.32 | 17.42 | 17.2 | 17.2 |

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
$^{o}$C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

**Table 3**
**Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones**
**RACER Trust**
**Moraine, Ohio**

| | | IRZ-3 East | | | | | | | | IRZ-4 East | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GM-21 (Continued) | | | | GM-2 | | | | GM-19S | | | | | | | | | | | |
| Constituents | Units | 7/31/20 | 10/7/21 | 11/10/22 | 9/15/23 | 7/31/20 | 10/7/21 | 11/10/22 | 9/15/23 | 9/20/99 | 2/23/00 | 5/24/00 | 9/22/00 | 3/19/01 | 11/20/01 | 12/11/01 | 6/12/02 | 9/26/02 | 5/21/03 | 9/25/03 | 9/13/04 |
| **TOC** | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon | mg/L | 62 | 36 | 25 | 28 | 0.92 J | 0.90 J | 0.88 J | 0.96 J | 2.0 | 7.0 | 5.0 | <1.0 U | <1.0 U | 2.0 B | 1.0 | 1.0 | 3.0 | 2.0 | 2.0 | 1.0 |
| **Permanent Gases** | | | | | | | | | | | | | | | | | | | | | |
| Methane | mg/L | 14 | 14 | 5.3 | 5.16 | <0.005 U | <0.005 U | <0.005 U | <0.01 U | 0.0099 | 0.0027 | 0.0033 | 0.0037 | 0.039 | 0.0050 | 0.0088 | 0.002 | 0.46 | 0.0021 | 0.0022 | 0.0014 |
| **Light Hydrocarbon Scan** | | | | | | | | | | | | | | | | | | | | | |
| Ethane | ng/L | 4,500 J | 5,800 | 3,500 | <5,000 U | <1,000 U | 240 J | <1,000 U | <5,000 U | 71 | 104 | 139 | 184 | 210 | 300 | 350 | 410 | 730 | 170 | 80 | 48 |
| Ethene | ng/L | 2,600 J | 1,600 | < 1,000 U | <5,000 U | <1,000 U | <1,000 U | <1,000 U | <5,000 U | 55 | 45 | 43 | 36 | 61 | 34 | 27 | 130 | 770 | 78 | 45 | 51 |
| **Field Parameters** | | | | | | | | | | | | | | | | | | | | | |
| pH | S.U. | 6.43 | 6.71 | 6.56 | 5.68 | 6.94 | 6.87 | 6.9 | 5.96 | 7.05 | 7.05 | 7.00 | 7.19 | 7.14 | 7.28 | 7.31 | 7.09 | 7.02 | 6.71 | 6.93 | 7.13 |
| Specific Conductivity | umhos/cm | 1,597 | 1,563 | 1,122 | 1,630 | 904 | 1,511 | 1,196 | 1,130 | 1,500 | 1,784 | 1,548 | 1,235 | 1,097 | 1,190 | 1,350 | 1,052 | 1,474 | 1,706 | 1,726 | 1,970 |
| Dissolved Oxygen | mg/L | 3.45 | 0.2 | 0.22 | 2.45 | 0.35 | 0.47 | 0.66 | 0.23 | 0.92 | 0.30 | 1.94 | 1.36 | 0.96 | 1.75 | 0.06 | 0.9 | 0.47 | 2.01 | 1.87 | 0.0 |
| Redox Potential | mV | -25.3 | 163 | -114.5 | -98 | 22.9 | 18 | 5.7 | 64 | 31.3 | 149.6 | 200.1 | 187.7 | 320.8 | 195.6 | 13 | 446.3 | 259.6 | 178.3 | 135 | 160 |
| Temperature | $^{o}$C | 17.92 | 18.4 | 15.88 | 17.4 | 18.09 | 16.03 | 17.12 | 16.27 | 20.85 | 18.69 | 20.80 | 20.09 | 20.14 | 19.24 | 19.1 | 20.39 | 20.36 | 20.22 | 19.57 | 18.6 |

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
$^{o}$C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

**Table 3**
**Bioattenuation Parameter Results for Groundwater Samples Collected in In-Situ Reactive Zones**
**RACER Trust**
**Moraine, Ohio**

| Constituents | Units | IRZ-4 East GM-19S (Continued) 10/18/05 | 9/21/06 | 9/17/07 | 9/23/08 | 11/17/09 | 4/7/10 | 9/27/10 | 9/29/11 | 9/6/12 | 9/26/13 | 10/7/14 | 12/5/15 | 8/22/16 | 8/16/17 | 7/24/18 | 7/12/19 | 7/31/20 | 10/7/21 | 11/10/22 | 9/15/23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TOC** | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon | mg/L | 3.0 | 22 | 6.0 J | 3.0 | 10 | NA | 14 | 4.6 | 2.6 | 3.2 | 2.2 | 2.5 | 1.3 | 1.3 | 1.7 | NA | 1.5 | 1.2 | 1.0 | 1.2 |
| **Permanent Gases** | | | | | | | | | | | | | | | | | | | | | |
| Methane | mg/L | < 0.0065 U | 0.025 | 7.5 | 0.79 | 25 | NA | 19 | 1.3 | 0.0090 | 0.22 | 0.54 | 1.2 | 0.46 | 0.72 | 0.21 | 0.60 | 0.13 | 0.28 | <0.005 U | 0.0618 |
| **Light Hydrocarbon Scan** | | | | | | | | | | | | | | | | | | | | | |
| Ethane | ng/L | <250 U | 730 | 7,800 | 550 | 11,000 | NA | 9,300 | 870 | 53 | 85 | 91 | 160 | 37 J | 14 J | 57 J | 77 J | < 1,000 U | < 1,000 U | < 1,000 U | <5,000 U |
| Ethene | ng/L | <220 U | 550 | 22,000 | 30,000 | <120 U | NA | 72 | 1,800 | 760 | 590 | 600 | 330 | 180 | 180 | 390 | 140 | 130 J | < 1,000 U | < 1,000 U | <5,000 U |
| **Field Parameters** | | | | | | | | | | | | | | | | | | | | | |
| pH | S.U. | 5.97 | 6.84 | 7.03 | 7.1 | 6.93 | 6.78 | 7.47 | 6.33 | 7.11 | 8.43 | 6.85 | 6.95 | 6.92 | 6.64 | 7.11 | 6.91 | 7.0 | 7.21 | 6.99 | 6.04 |
| Specific Conductivity | umhos/cm | 1,940 | 2,150 | 2,010 | 2,290 | 1,951 | 2,370 | 1,986 | 2,150 | 1,377 | 1,539 | 1,280 | 1,280 | 1,180 | 1,180 | 1,130 | 1,127 | 893 | 1519 | 865 | 1,160 |
| Dissolved Oxygen | mg/L | 0.0 | 0.3 | 0.43 | 1.87 | 0.33 | 0.80 | 0.67 | 2.08 | 0.54 | 0.54 | 0.32 | 0 | 2.16 | 3.72 | 0 | 1.32 | 0.61 | 0.33 | 0.24 | 2.18 |
| Redox Potential | mV | 122 | -82 | -145 | -153 | -137.9 | -157 | -112.5 | -150 | -26 | -64.1 | -79 | -151 | -133 | -138 | -143 | -40.7 | -107.3 | -111.0 | -125.6 | -114.0 |
| Temperature | $^{o}$C | 17.6 | 17.9 | 17.5 | 16.9 | 16.68 | 17.73 | 16.43 | 17.82 | 23.90 | 19.80 | 15.30 | 16.37 | 17.37 | 17.41 | 16.87 | 17.30 | 17.53 | 16.37 | 15.99 | 16.27 |

NOTES:
< - Constituent not detected above laboratory reporting limit.
B - Blank Contamination.
$^{o}$C - Degrees Celsius.
J - Value is estimated.
mg/L - Milligrams per Liter.
ng/L - Nanograms per Liter.
umhos/cm - Micromhos per Centimeter.
mV - Millivolts.
NA - Not Analyzed.
S.U. - Standard Units.
U - Constituent not detected above laboratory reporting limit shown.
Samples collected in September 1999 represent baseline conditions. Carbon source introductions began in December 1999.

**Table 4**
**Groundwater Level Measurements Collected During 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Measuring Point Elevation (feet AMSL) | Date/Time | Depth-to-Water (feet) | Total Depth (feet) | Groundwater Elevation (feet AMSL) | Survey Datum Used |
|---|---|---|---|---|---|---|
| **Upper Aquifer Wells** | | | | | | |
| GM-02 | 734.76 | 9/11/23 13:54 | 28.70 | 56.30 | 706.06 | NAVD 88 |
| GM-08 | 734.40 | 9/11/23 13:39 | 18.41 | 51.30 | 715.99 | NAVD 88 |
| GM-17 | 722.79 | 9/11/23 15:43 | 17.25 | NM | 705.54 | NAVD 88 |
| GM-19S | 729.72 | 9/11/23 14:06 | 23.68 | 55.80 | 706.04 | NAVD 88 |
| GM-34 | 729.27 | 9/11/23 14:25 | 23.00 | 35.00 | 706.27 | NAVD 88 |
| GM-45 | 728.13 | 9/11/23 14:17 | 21.70 | 59.75 | 706.43 | NAVD 88 |
| GM-47 | 725.81 | 9/11/23 12:27 | 20.16 | 59.01 | 705.65 | NAVD 88 |
| GM-50 | 725.62 | 9/11/23 12:25 | 20.00 | 39.13 | 705.62 | NAVD 88 |
| GM-63 | 724.86 | 9/11/23 12:07 | 19.02 | 38.93 | 705.84 | NAVD 88 |
| HR-04 | 742.60 | 9/11/23 10:38 | 32.52 | 67.90 | 710.08 | NGVD 29 |
| HR-16 | 726.02 | 9/11/23 14:44 | 19.95 | 64.44 | 706.07 | NAVD 88 |
| HR-17 | 725.42 | 9/11/23 14:40 | 19.07 | 47.98 | 706.35 | NAVD 88 |
| RMW-91 | 725.50 | 9/11/23 15:16 | 19.75 | 52.80 | 705.75 | NAVD 88 |
| RMW-92 | 725.92 | 9/11/23 15:14 | 20.03 | 38.24 | 705.89 | NAVD 88 |
| RMW-93 | 727.56 | 9/11/23 15:02 | 21.80 | 62.41 | 705.76 | NAVD 88 |
| RMW-94 | 727.53 | 9/11/23 15:04 | 21.71 | 43.33 | 705.82 | NAVD 88 |
| RMW-98 | 725.10 | 9/11/23 12:36 | 19.85 | 60.60 | 705.25 | NAVD 88 |
| RMW-99 | 724.95 | 9/11/23 12:39 | 19.62 | 34.39 | 705.33 | NAVD 88 |
| RMW-100 | 723.58 | 9/11/23 12:49 | 17.95 | 50.18 | 705.63 | NAVD 88 |
| RMW-101 | 723.47 | 9/11/23 12:53 | 17.80 | 34.21 | 705.67 | NAVD 88 |
| RMW-102 | 723.98 | 9/11/23 13:07 | 18.60 | 24.40 | 705.38 | NAVD 88 |
| W-2-N | 731.68 | 9/11/23 9:35 | 23.20 | 59.65 | 708.48 | NGVD 29 |
| W-2-S | 725.67 | 9/11/23 14:51 | 20.00 | 67.09 | 705.67 | NAVD 88 |
| W-3-N | 733.66 | 9/11/23 11:29 | 25.06 | 57.27 | 708.60 | NGVD 29 |
| W-3-S | 728.16 | 9/11/23 14:57 | 22.42 | 73.25 | 705.74 | NAVD 88 |
| W-4-N | 731.63 | 9/11/23 11:39 | 22.95 | 66.25 | 708.68 | NGVD 29 |
| W-4-S | 726.76 | 9/11/23 15:09 | 20.76 | 70.75 | 706.00 | NAVD 88 |
| WEST | 729.96 | 9/11/23 14:32 | 23.73 | 51.45 | 706.23 | NAVD 88 |
| WSU-23 | 724.00 | 9/11/23 12:14 | 18.45 | 56.80 | 705.55 | NAVD 88 |
| **Lower Aquifer Wells** | | | | | | |
| GM-01 | 735.74 | 9/11/23 13:49 | 78.72 | NM | 657.02 | NGVD 29 |
| GM-05 | 731.29 | 9/11/23 13:45 | 24.55 | NM | 706.74 | NGVD 29 |
| GM-09 | 724.07 | 9/11/23 15:32 | 17.72 | NM | 706.35 | NGVD 29 |
| GM-11 | 723.71 | 9/11/23 15:40 | 17.36 | NM | 706.35 | NGVD 29 |
| GM-13 | 722.78 | 9/11/23 15:46 | 17.75 | NM | 705.03 | NAVD 88 |
| GM-14 | 722.46 | 9/11/23 15:50 | 17.49 | NM | 704.97 | NAVD 88 |
| GM-15 | 724.46 | 9/11/23 13:03 | 19.36 | 96.90 | 705.10 | NAVD 88 |
| GM-20D | 727.26 | 9/11/23 13:27 | 20.11 | NM | 707.15 | NGVD 29 |
| M73C | 716.55 | 9/11/23 15:56 | 10.55 | NM | 706.00 | NGVD 29 |
| DN-13 | 726.04 | 9/11/23 16:01 | 53.42 | NM | 672.62 | NAVD 88 |

NOTES:

Elevations are reported in feet above mean sea level (AMSL).

Groundwater levels were measured on September 11, 2023 using electronic water level indicators.

Groundwater level measurements are reported in feet below the measuring point.

Measuring point is the top of the well casing or surveyed measuring point.

NM - Not Measured.

Survey of well coordinates were originally to a site-specific coordinate system in feet with the vertical datum as the National Geodetic Vertical Datum of 1929 (NGVD 29) using an on-site benchmark. In 2019 several monitoring wells were re-surveyed using the North American Vertical Datum of 1988 (NAVD 88).

**Table 5**
**Vertical Hydraulic Gradients for 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Vertical Hydraulic Gradients - 2023 | | | |
|---|---|---|---|
| **Shallow/Deep Upper Aquifer Wells[1]** | **Mid-Screen Distance (ft)** | **Direction (U/D)** | **Gradient** |
| ***On-Site - Phase 1 Extraction Well Area - September 11, 2023*** | | | |
| RMW-92 (705.89 ft amsl) / RMW-91 (705.75 ft amsl) | 20 | D | 7.2E-03 |

NOTES:

U - Upward vertical hydraulic gradient.

D - Downward vertical hydraulic gradient.

amsl - above mean sea level.

ft - feet.

The vertical datum for Shallow/Deep Upper Aquifer wells is NAVD 88.

1 - vertical gradient is calculated using shallow Upper Aquifer and deep Upper Aquifer well pair.

**Table 6**
**Proposed Groundwater Monitoring Program for 2024**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

## Off-Site DN-13 Capture Zone Performance Monitoring Wells (Annual)

**Lower aquifer monitoring wells to be analyzed for the site-specific list of VOCs[(1)]:**

| | | | |
|---|---|---|---|
| DN-13 | GM-9 | GM-15 | GM-20D |

## In-Situ Reactive Zone Performance Monitoring Wells (Annual)

**Upper aquifer monitoring wells to be analyzed for the site-specific list of VOCs[(1)] and biogeochemical parameters[(2)]:**

| | | | |
|---|---|---|---|
| GM-2[(3)] | GM-19S | GM-21 | GM-32 |

## Closed North and South Settling Lagoon Monitoring Wells (Annual)

**Upper aquifer monitoring wells analyzed for the site-specific list of VOCs[(1)]:**

| | | | |
|---|---|---|---|
| HR-4 | W-2-N | W-3-N | W-4-N |
| HR-17 | W-2-S | W-3-S | W-4-S |

## Phase I DGR™ Performance Monitoring Wells (Annual)

**Upper aquifer monitoring wells[(4)] to be analyzed for the site-specific list of VOCs[(1)]:**

| | | | | | |
|---|---|---|---|---|---|
| GM-47 | GM-50 | GM-51 | GM-63 | GM-64 | RMW-93 |
| RMW-94 | RMW-99 | RMW-101 | RMW-102 | WSU-23 | |

## Analytical Methods

| Parameter | Analytical Method |
|---|---|
| Site-specific list of VOCs | SW846 8260B |
| Total organic carbon | SW846 9060 |
| Ethane, ethene, methane | AM20GAX |

NOTES:

1 – Site-specific list of VOCs for 2024 includes: benzene, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, vinyl chloride, and xylenes.

2 – Biogeochemical parameters include: total organic carbon (TOC), ethane, ethene, and methane.

3 – Monitoring well GM-2 is located further downgradient from IRZ-3 East. Sampled since 2019 to support performance verification.

4 – Includes monitoring wells GM-19S, HR-17, W-2-S, W-3-S, and W-4-S.

Field parameters will be collected at all monitoring wells (pH, specific conductivity, dissolved oxygen, oxidation reduction potential, and temperature)

# Figures

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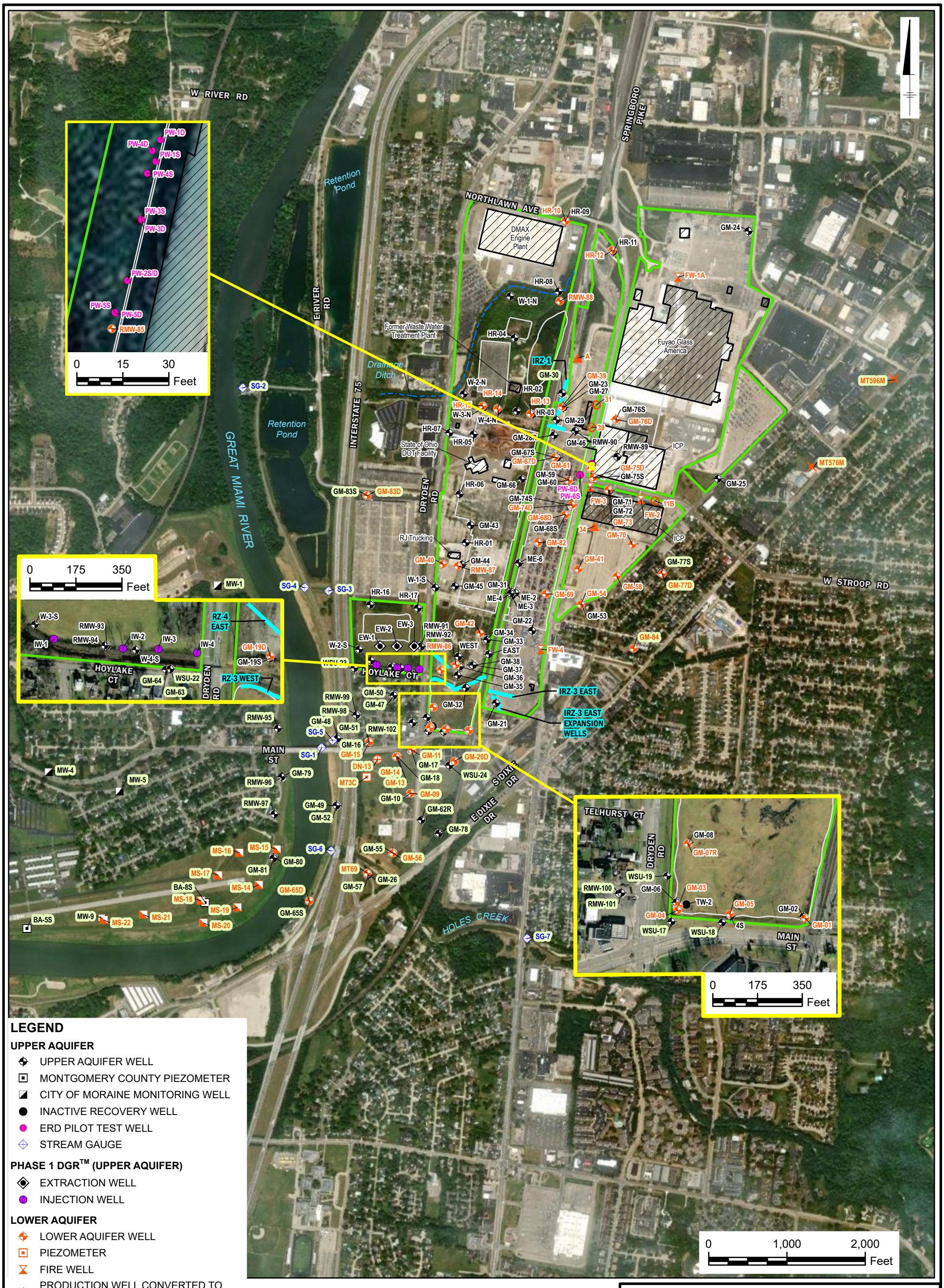


## LEGEND

**UPPER AQUIFER**

- UPPER AQUIFER WELL
- MONTGOMERY COUNTY PIEZOMETER
- CITY OF MORAINE MONITORING WELL
- INACTIVE RECOVERY WELL
- ERD PILOT TEST WELL
- STREAM GAUGE

**PHASE 1 DGR™ (UPPER AQUIFER)**

- EXTRACTION WELL
- INJECTION WELL

**LOWER AQUIFER**

- LOWER AQUIFER WELL
- PIEZOMETER
- FIRE WELL
- PRODUCTION WELL CONVERTED TO MONITORING WELL
- INACTIVE PRODUCTION WELL
- MONTGOMERY COUNTY WELL (DN-13) USED BY RACER
- MONTGOMERY COUNTY WELL (INACTIVE)
- PRIVATE WELL
- CARBON SOURCE INTRODUCTION WELLS, REACTIVE ZONES
- DRAINAGE DITCH

- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

Notes:
1. Aerial Source; Vivid Advanced, dated 12/26/2021, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/12/2024.
2. Property Boundary (Parcel) data downloaded on 01/22/2020 from http://www.mcauditor.org/downloads/gis_downloads.cfm/.
3. Olive-shaded labels indicate offsite wells.

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**2023 GROUNDWATER MONITORING REPORT**

**SITE MAP**

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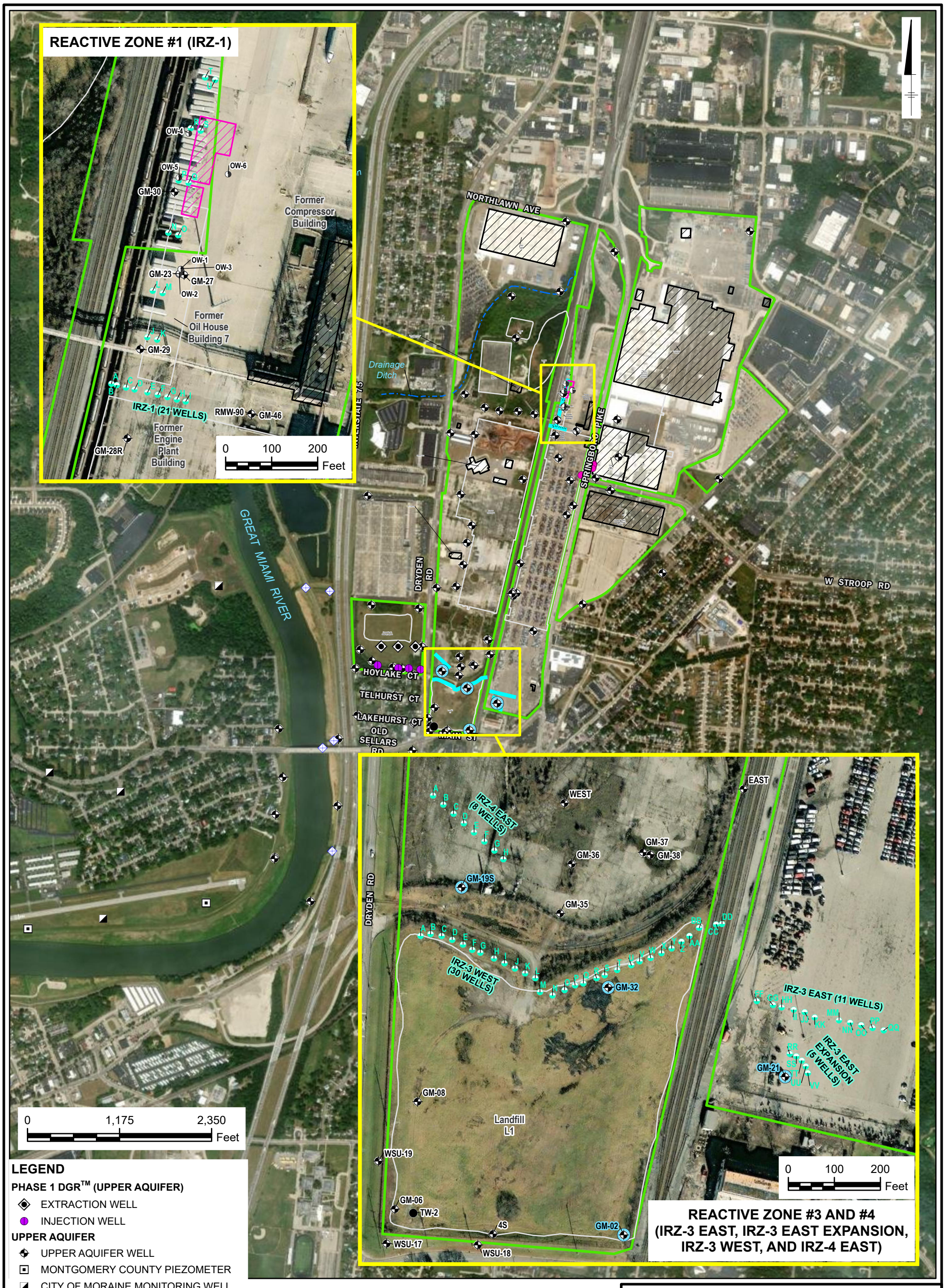
**FIGURE 1**

Path: T:_ENV\RACER_MORAINE\GIS_PRO_REPORT_FIGURES\GWMonitoringReport_2023.aprx\Fig02_Upper Aquifer Reactive Zones Last Saved By: jchen Last Saved On: 1/12/2024 11:28 AM




## LEGEND

**PHASE 1 DGR™ (UPPER AQUIFER)**

- EXTRACTION WELL
- INJECTION WELL

**UPPER AQUIFER**

- UPPER AQUIFER WELL
- MONTGOMERY COUNTY PIEZOMETER
- CITY OF MORAINE MONITORING WELL
- INACTIVE RECOVERY WELL
- ERD PILOT TEST WELL
- STREAM GAUGE
- CARBON SOURCE INTRODUCTION WELLS, REACTIVE ZONES
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

**ADDITIONAL LEGEND IN INSETS**

- OXIDATION WELL (INACTIVE)
- CARBON SOURCE INTRODUCTION WELL
- UPPER AQUIFER MONITORING WELL SAMPLED IN 2023
- APPROXIMATE LOCATION OF FORMER MORAINE ENGINE TANK FARM

Notes:
1. Aerial Source; Vivid Advanced, dated 12/26/2021, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/12/2024.

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**UPPER AQUIFER REACTIVE ZONES**

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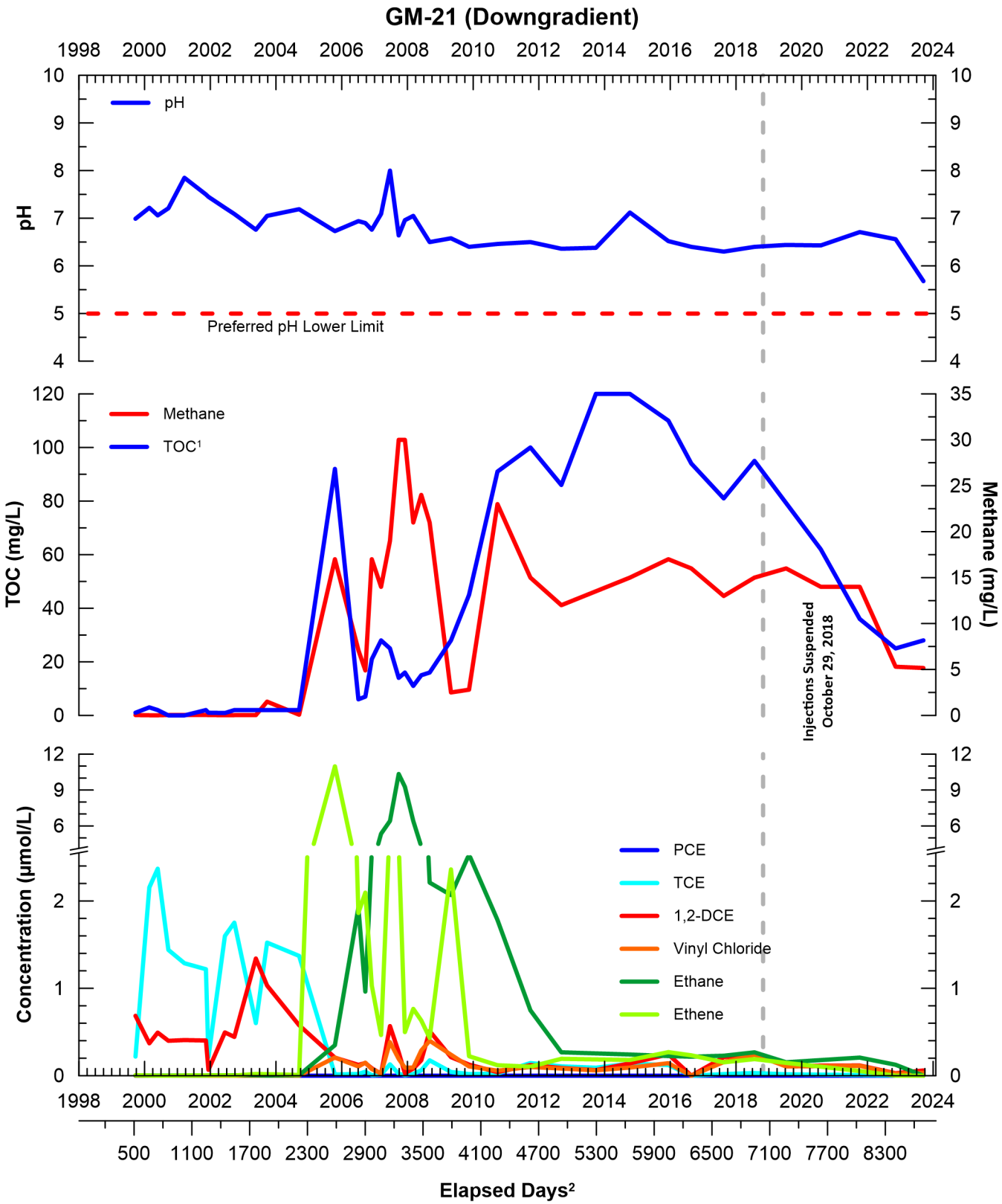
**FIGURE 2**




1 - TOC breakthrough is 20 mg/L.
2 - Days since RZ-3 ERD implementation.
ERD - Enhanced reductive dechlorination.
pH - Negative logarithm of the hydrogen-ion concentration.
mg/L - Milligram per liter.
µmol/L - micromoles per liter.
TOC - Total organic carbon.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
1,2-DCE - cis and trans-1,2-Dichloroethene.

Note: Ethene, ethane, and methane parameters were not collected during the 2013 annual groundwater sampling event at GM-21.

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**IRZ-3 EAST ERD ANALYSIS**
**(GM-21 - DOWNGRADIENT)**

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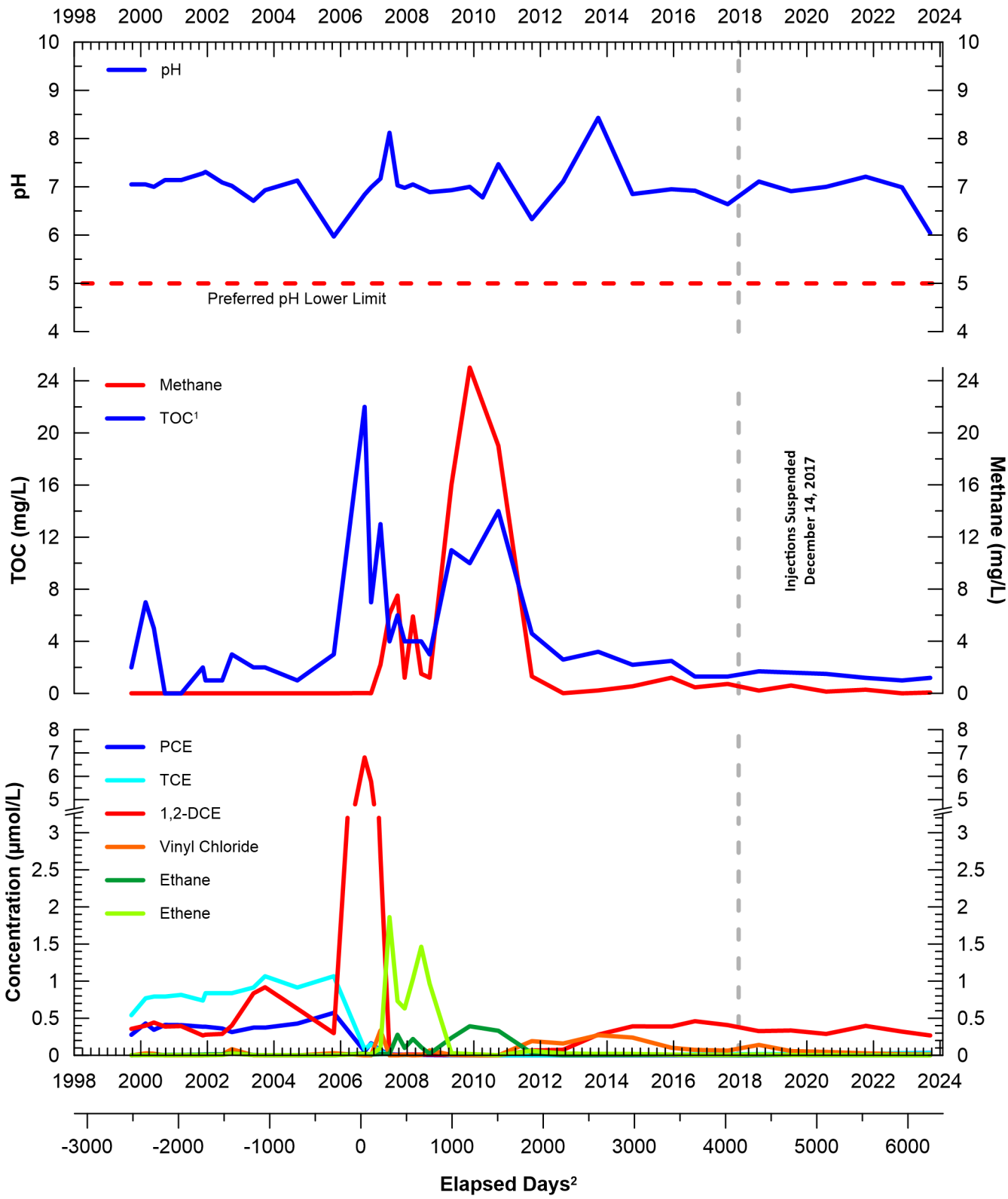
FIGURE
**3**




1 - TOC breakthrough is 20 mg/L.
2 - Days since RZ-4 ERD implementation.
ERD - Enhanced reductive dechlorination.
pH - Negative logarithm of the hydrogen-ion concentration.
mg/L - Milligram per liter.
µmol/L - micromoles per liter.
TOC - Total organic carbon.
PCE - Tetrachloroethene.
TCE - Trichloroethene.
cis-1,2-DCE - cis-1,2-Dichloroethene.

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**IRZ-4 ERD ANALYSIS**
**(GM-19S - DOWNGRADIENT)**

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FIGURE
**4**

Charts inserted in T:_ENV\RACER_MORAINE\AI\Fig05_Phase1DGR-PCE_TCE_ConcentrationTrends in GW_2023.ai

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## LEGEND

**PHASE 1 DGR™ (UPPER AQUIFER)**

- EXTRACTION WELL
- INJECTION WELL

**UPPER AQUIFER**

- UPPER AQUIFER WELL
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY

- TCE CONCENTRATION
- PCE CONCENTRATION
- TCE VISL (9.9 µg/L)
- PCE VISL (122 µg/L)

PCE = Tetrachloroethene
TCE = Trichloroethene
µg/L = Micrograms per Liter
EPA = Environmental Protection Agency
VISL = Vapor Intrusion Screening Level
UA = Upper Aquifer
WT = Water Table
TT = Top of Till (Regional Clay Till)

0 300 600 Feet

Notes:
1. Aerial Source; Vivid Advanced, dated 12/26/2021, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 1/12/2024.
2. Screening Levels are calculated using U.S. EPA VISL calculator and based on average groundwater temperature of 11°C.

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**2023 GROUNDWATER MONITORING REPORT**

# PHASE 1 DGR™ - PCE AND TCE CONCENTRATION TRENDS IN GROUNDWATER

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**FIGURE 5**

Path: T:_ENV\RACER_MORAINE\GIS_PRO_REPORT_FIGURES\GWMonitoringReport_2023.aprx\Fig06_GW Potentiometric Surface Map for Phase 1 DGR Area  Last Saved By: jchen  Last Saved On: 2/1/2024 12:12 PM

| Phase 1 DGR™ System | Average Flow Rate (gpm) (September 11, 2023) |
|---|---|
| EW-1 | 99.9 |
| EW-2 | 99.8 |
| EW-3 | 100.6 |
| IW-1 | 56.9 |
| IW-2 | 63.8 |
| IW-3 | 99.8 |
| IW-4 | 100.6 |
| **Total System** | 300.3 |

**LEGEND**

**UPPER AQUIFER**
- UPPER AQUIFER WELL

**PHASE 1 DRG™ (UPPER AQUIFER)**
- EXTRACTION WELL
- INJECTION WELL
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)
- FORMER BUILDING/ SITE FEATURE
- PROPERTY BOUNDARY
- W-4-S — WELL IDENTIFIER
- 706.00 — GROUNDWATER ELEVATION (FEET AMSL)

Notes:
1. Aerial Source; Vivid Advanced, dated 12/26/2021, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/1/2024.
2. Groundwater elevations were measured on September 11, 2023.
3. ( ) = not used in contouring
4. AMSL = Above Mean Sea Level
5. gpm = Gallons per Minute

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**2023 GROUNDWATER MONITORING REPORT**

**GROUNDWATER POTENTIOMETRIC SURFACE FOR PHASE 1 DGR™ AREA**

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**FIGURE 6**

# Appendix A

## Supplementary Annual Report

# MEMO

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To:

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Astrea Taylor, Ohio EPA

Copies:

Pam Barnett, RACER Trust

Eric Leitz, U.S. EPA

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Suite 230
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Fax 614 985 9170

From:

Arcadis U.S., Inc.

Date:

February 27, 2024

Arcadis Project No.:

30209641.0004B

Subject:

2023 Supplementary Annual Report

---

This Supplementary Annual Report was prepared to summarize the groundwater evaluations for the closed North Settling Lagoon (NSL) and closed South Settling Lagoon (SSL) at the Revitalizing Auto Communities Environmental Response Trust (RACER Trust) Moraine Facilities site in Moraine, Ohio (Site). The objective of the Supplemental Annual Report is to evaluate the potential for hazardous constituents from the closed NSL and SSL to impact groundwater.

The property line interim measure, Phase 1 Dynamic Groundwater Recirculation (DGR™), was implemented within the closed SSL footprint in 2019 to reduce site-specific volatile organic compounds (VOCs) in groundwater within the Riverview Plat neighborhood to concentrations below the maximum contaminant levels (MCLs) within 5 years of operation. The direct benefit of addressing total site-specific VOCs within the neighborhood is a reduced vapor intrusion risk for structures within the neighborhood that have not provided access for installation of a vapor intrusion mitigation system. This interim measure includes upgradient extraction wells (EW-1, EW-2, and EW-3), located in the central portion of the closed SSL, and treated water injection wells (IW-1, IW-2, IW-3, and IW-4), located on the southern edge of the closed SSL. The active groundwater remediation in this area interferes with the evaluation of potential impacts to groundwater from the closed SSL. The below evaluation summarizes these implications.

## GROUNDWATER SAMPLING PROGRAM

The Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc., 2002) was developed to meet the objectives of the Ohio EPA post-closure monitoring for the closed NSL and SSL. For 2023, the site-specific VOC groundwater data is summarized in Table 2 of the 2023 Groundwater Monitoring Report (the

Report). The following sections summarize collection of the annual groundwater elevation measurements, groundwater monitoring, and statistical evaluation.

Groundwater samples were analyzed for the site-specific VOC parameter list using SW846 Method 8260D. This parameter list was developed after evaluating data from the September 1999 baseline groundwater sampling event and the one-time sampling event conducted in September/October 2000 (which included analysis of Appendix IX VOCs, cis-1,2-DCE, SVOCs, and metals) as part of the Former Oil House Area interim measures. The site-specific VOCs include benzene, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), ethylbenzene, tetrachloroethene (PCE), toluene, 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), vinyl chloride, and xylenes. The groundwater samples were submitted to the Eurofins Environment Testing North Central, LLC laboratory in Barberton, Ohio.

The following sections include the information that is required by the Ohio EPA.

## SECTIONS 1 THROUGH 5 – EXCEL WORKSHEETS

The Excel Worksheets containing required information regarding the facility, wells, sampling, parameters, and groundwater data are included in **Attachment A-1**.

## SECTION 6 – OTHER REQUIRED INFORMATION:

**1. Signed Certification Statement per OAC Rules 3745-50-58(K) and 3745-50-42**

OHIO EPA

SUPPLEMENTARY ANNUAL REPORT

FOR 2023 GROUNDWATER

MONITORING INFORMATION

February 27, 2024

Prepared by Arcadis

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____

Pamela L. Barnett

Cleanup Manager

## 2. Groundwater Flow Data

Groundwater levels for the upper aquifer well network associated with the closed NSL and SSL were measured on September 11 and September 12, 2024, respectively. Groundwater levels were measured in accordance with procedures defined in the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc. 2002), Standard Operating Procedure (SOP) #4.

Monitoring results indicate that groundwater flow is generally from northeast to southwest. The potentiometric surface for the closed NSL and SSL are illustrated in **Figures A-1** and **A-2**, respectively.

The horizontal hydraulic gradient within the upper aquifer in the closed NSL area were consistent with past values at 5.3 x $10^{-4}$. These calculations were not completed for the closed SSL due to the operation of Phase 1 DGR™ which induces hydraulic gradient control with extraction and treated water injection. According to the 2012 Corrective Measures Proposal (Arcadis, 2012), using the range in hydraulic conductivity values measured for the sand and gravel facies of the upper aquifer (180 to 3,500 feet/day), long-term site-wide horizontal hydraulic gradient of 4.7 x $10^{-4}$, and effective porosity of 10%, the estimated advective groundwater velocity ranges from 0.8 to 16 feet/day for most of the upper aquifer.

## 3. Sampling Data and 4. Lab Data

In 2023, the following wells were sampled to assess the groundwater monitoring program objectives:

- Closed NSL: HR-4, W-2-N, W-3-N, and W-4-N
- Closed SSL: HR-17, W-2-S, W-3-S, and W-4-S

A summary of the 2023 groundwater monitoring activities, including the number of monitoring wells and analytical parameters, is presented in Table 1 of the Report. Well construction data for the monitoring wells used in the program are presented in Table 4 of the Report.

Groundwater samples were collected from the specified wells using the low-flow methodology and following procedures outlined in SOP #21 (Arcadis G&M, Inc., 2002). Field parameters including pH, specific conductance, temperature, oxidation/reduction potential, and dissolved oxygen were measured during purging of each well using a multi-parameter groundwater quality meter connected to a flow-through cell (Appendix B in the Report). The groundwater sampling details are provided on the groundwater sampling forms included in **Attachment A-2**. The analytical results are summarized below and are included in this report as **Attachment A-1** and in Table 2 of the Report.

The groundwater samples were collected and managed under standard chain-of-custody procedures and validated in accordance with the approved RACER Trust Quality Assurance Project Plan for the Moraine Facilities (QAPP; Arcadis 2023b). The data quality assessment was completed on December 11, 2023, for all samples collected in September for the annual groundwater sampling event. The review was conducted as a Tier III evaluation and included review of data package completeness. Some issues were identified during the data review; however, the quality exceedances were minor, and no sample results were rejected as unusable. Therefore, the sample data are considered usable as qualified and are acceptable to support site decisions. The data validation report is provided as **Attachment A-3,** historical data table as **Attachment A-4**, and laboratory results as **Attachment A-5**.

Closed NSL

- Concentrations of site-specific VOCs were detected at relatively low concentrations or below reporting limits in monitoring wells HR-4, W-2-N, and W-3-N in 2023.
- TCE had a peak concentration of 15 micrograms per liter (µg/L) in 2009 and has remained relatively consistent, with a concentration of 8.7 µg/L in September 2023. Concentrations of cis-1,2-DCE have also remained relatively consistent with a concentration of 6.9 µg/L in September 2023. The other site-specific VOCs were detected at relatively low concentrations or below reporting limits.

Closed SSL

- Concentrations of PCE in monitoring well HR-17 have been relatively consistent since 2011 with a concentration of 200 µg/L in September 2023. Concentrations of the other site-specific VOCs were below reporting limits in monitoring well HR-17 in 2023.
- Concentrations of PCE in monitoring well W-2-S were relatively consistent prior to 2019 when the concentration increased to 20 µg/L, and the highest PCE concentration was observed in November 2022 at 28 µg/L. In September 2023, the concentration decreased to 12 µg/L. The concentration of TCE at W-2-S was 6.3 µg/L, consistent with historical concentrations. All other concentrations of site-specific VOCs at W-2-S were detected at relatively low concentrations or below reporting limits in 2023.
- The PCE concentration at monitoring well W-3-S in September 2023 increased to 150 µg/L, the highest concentration observed at this monitoring well since monitoring began. The other site-specific VOCs were not detected in 2023.
- The PCE concentration detected at monitoring well W-4-S in September 2023 was 22 µg/L. The concentration of TCE was 1.0 µg/L, and the other site-specific VOCs were detected at relatively low concentrations or below reporting limits in 2023.

**5. Tables**

The statistical results described in the below Section 7 are provided as **Tables A-1** and **A-2**.

**6. Maps**

The position of the wells relative to the lagoons and the potentiometric surface for the closed NSL and closed SSL are illustrated in **Figures A-1** and **A-2**, respectively.

**7. Calculations**

Calculations are not applicable.

## SECTION 7 STATISTICAL EVALUATION

### Methods

The 2023 groundwater monitoring program was completed to meet the objectives of RCRA corrective action and the post-closure groundwater monitoring requirements for the closed lagoons. The program monitors potentially significant contributions of hazardous waste constituents to existing groundwater quality from the closed lagoons. To determine if the closed lagoons may be significant contributors of hazardous waste constituents to existing groundwater concentrations, monitoring data collected from the

designated post-closure monitoring wells located downgradient of each of the closed lagoons are evaluated for temporal trends. This assessment includes, as an initial approach, the application of linear regression to determine if the concentration data for site-specific VOCs suggests a strong positive correlation with time as indicated by the coefficient of determination ($R^2$). Further statistical assessment of these well constituent concentrations was performed using the Mann-Kendall trend test and the Sen's slope estimator test (**Table A-1**).

## Results

Data considered in the evaluation included results through the September 2023 monitoring event and data ranging back to the initial post-closure monitoring event conducted in November 2001. Current and historical data used in the statistical analysis is included in **Attachment A-4**. Laboratory reports are included as **Attachment A-5**. For the Mann-Kendall trend analysis, values below the reporting limit were replaced by a common value lower than the minimum detected value equal to half the minimum reporting limit for each dataset (USEPA, 2009). If half the minimum reporting limit was greater than the minimum detected value, then half the minimum detected value was assigned. This non-detect replacement ensures that any pair of tied values or any pair of non-detects is simply given a score of zero in the calculation of the Mann-Kendall statistic *S*. For consistency in data analysis, the same substitution method is used for the Sen's slope estimator and linear regression analyses. Field duplicate results were not included.

As proposed in the Site-Wide Groundwater Monitoring Plan (Arcadis G&M, Inc., 2002), post-closure monitoring data collected from those wells assigned to the closed lagoons were reviewed for temporal trends. Summary statistics and results from the statistical trend tests for each dataset are presented in **Table A-1**. A summary matrix of trend test results is presented in **Table A-2**. The data plots for key constituents are provided on **Figure A-3** for the closed NSL and **Figure A-4** for the closed SSL. Individual time series plots for each dataset together with results from the Mann-Kendall and Sen's slope estimator tests are presented in **Figures A-5 to A-18**.

### Closed NSL

For the wells used to assess conditions at the closed NSL, the Mann-Kendall trend test identified increasing trends for 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE in downgradient well W-4-N (**Figures A-6**, **A-9**, and **A-10**, respectively). As detailed in **Table A-1**, the magnitude of these trends was also statistically significant using the Sen's slope estimator test for 1,1-DCA and trans-1,2-DCE only (no trend was observed for cis-1,2-DCE). The coefficient of determination ($R^2$) was greater than 0.5 for 1,1-DCA but not for cis-1,2-DCE or trans-1,2-DCE. Concentrations of cis-1,2-DCE and trans-1,2-DCE were much less than the applicable MCL (no MCL is available for 1,1-DCA). An increasing trend was observed for cis-1,2-DCE in downgradient well W-2-N (**Figure A-8**). The magnitude of this trend was not statistically significant using the Sen's slope estimator trend test and the $R^2$ was less than 0.5. Concentrations were much less than the MCL. Increasing trends were not observed in downgradient monitoring well W-3-N.

In the upgradient well HR-04, increasing trends were identified for 1,1,1-TCA and cis-1,2-DCE by the Mann-Kendall trend test (**Figures A-5** and **A-7**, respectively). The magnitude of these trends was statistically significant using the Sen's slope estimator test. The $R^2$ was greater than 0.5 for 1,1,1-TCA and cis-1,2-DCE. Concentrations of these constituents were significantly less than the MCL.

In summary, the closed NSL data indicate a statistically significant increasing trend in 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE in downgradient monitoring well W-4-N and in cis-1,2-DCE in downgradient monitoring well W-2-N. The following observations suggest a source (upgradient) other than the closed

NSL for 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE in monitoring well W-4-N and cis-1,2-DCE in monitoring well W-2-N:

- The absence of concentrations of cis-1,2-DCE and trans-1,2-DCE greater than MCLs and the low-level detection of 1,1-DCA (7.5 µg/L at W-4-N with no MCL available).
- The fact that these constituents (1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE) are daughter products of VOCs that have been detected upgradient of the closed NSL.

**Closed SSL**

For the wells used to assess conditions at the closed SSL, increasing trends were identified in the four wells for at least one of the following three constituents: cis-1,2-DCE, PCE, and TCE (**Tables A-1** and **A-2**, **Figure A-4**).

- **Upgradient well HR-17**. A statistically significant increasing trend for PCE was identified with both the Mann-Kendall and Sen's slope estimator tests, and the $R^2$ was greater than 0.5. PCE concentrations over the past five sampling events ranged from 130 µg/L to 200 µg/L, all greater than the MCL of 5 µg/L (**Figure A-14**).

- **W-2-S**. Statistically significant increasing trends for cis-1,2-DCE and PCE were identified with both the Mann-Kendall and Sen's slope estimator tests, but the $R^2$ was less than 0.5. Concentrations for cis-1,2-DCE were less than the MCL (**Figure A-11**). The 2023 concentration for PCE (12 µg/L) was greater than the MCL (5 µg/L), but less than the maximum observed 2022 concentration (28 µg/L) following a concentration less than the MCL in 2021 (1.0 µg/L; **Figure A-15**).

- **W-3-S**. A statistically significant increasing trend for PCE was identified by the Mann-Kendall and Sen's slope estimator tests, and the $R^2$ was greater than 0.5 (**Figure A-16**). A statistically significant increasing trend was identified for cis-1,2-DCE with the Mann-Kendall, but the magnitude was not confirmed by the Sen's slope estimator trend tests, and the $R^2$ was less than 0.5 (**Figure A-12**). Concentrations for all constituents except PCE were less than the applicable MCL. Concentrations of PCE over the past six sampling events ranged from 19 to 150 µg/L and were greater than the MCL of 5 µg/L.

- **W-4-S**. A statistically significant increasing trend for cis-1,2-DCE (**Figure A-13**) and PCE (**Figure A-17**), was identified with both the Mann-Kendall and Sen's slope estimator trend tests, but the $R^2$ values were less than 0.5 for each constituent. A statistically significant increasing trend for TCE (**Figure A-18**) was identified with the Mann-Kendall, but the magnitude was not confirmed by the Sen's slope estimator trend tests, and the $R^2$ was less than 0.5. Concentrations for all constituents but PCE were less than the applicable MCL. Concentrations of PCE over the past five sampling events ranged from 22 to 70 µg/L and were greater than the MCL of 5 µg/L. TCE concentrations have remained less than the MCL of 5 µg/L since 2021.

The detected concentration for PCE in the upgradient monitoring well HR-17 during the 2023 sampling event was 200 µg/L, and TCE was not detected at or above the laboratory reporting limit. A statistically significant increasing trend for PCE was identified by the Mann-Kendall and Sen's slope estimator tests, and the $R^2$ was greater than 0.5 (**Figure A-14**). A statistically significant increasing trend for TCE was not identified by the Mann-Kendall trend test or the Sen's slope estimator trend tests – the $R^2$ was less than 0.5 (**Table A-1**). The observed concentration increase identified in downgradient monitoring well W-4-S for

PCE and TCE appears to correlate with the concentrations and increasing trends also observed in upgradient well HR-17. The correlations between concentrations in upgradient well HR-17 and downgradient well W-4-S for TCE and PCE were tested statistically using Pearson correlation coefficients and were found to be statistically correlated at the 5% significance level (**Figure A-19**). This correlation suggests a source (upgradient) other than the closed SSL for the TCE and PCE increases. Although the concentrations for cis-1,2-DCE, trans-1,2-DCE, and 1,1-DCA in wells W-4-S and HR-17 are not statistically correlated, the concentrations are still less than applicable drinking water standards. The presence of daughter products 1,1-DCA, cis-1,2-DCE, and trans-1,2-DCE is expected from the natural attenuation processes.

The operation of the Phase 1 DGR™ system since October 2019 may have had an influence on diffuse VOC concentration distribution locally, causing temporary increases or decreases that are not representative of ambient groundwater conditions without operation of an interim measure. It is expected that site-specific VOC concentrations will decrease overall as operation of Phase 1 DGR™ (i.e., extraction of impacted groundwater upgradient and injection of treated water downgradient) continues. The influence that Phase 1 DGR™ has on groundwater concentrations within the closed SSL area departs from the statistical analysis purpose of evaluating the potential for hazardous constituents to be leaching from the closed waste units. For these reasons, additional statistical analyses while Phase 1 DGR™ is operational are inappropriate.

## CONCLUSIONS AND RECOMMENDATIONS

The closed NSL and SSL have been monitored for over 40 years, and evaluation of the monitoring data indicates that the closed lagoons do not appear to be contributing hazardous waste constituents to groundwater in the area. The robust data set from 21 years of post-closure data collection and evaluation (implemented in 2003) and the decades of pre-closure monitoring have indicated that the closed NSL and SSL are not adversely affecting groundwater. The trajectory of the plume from the upgradient source area to the downgradient closed SSL indicates impacted groundwater in the vicinity of the closed SSL is primarily associated with the untreated, upgradient source area.

As mentioned above, the Phase 1 DGR™ system was installed in October 2019 in the central and southern portion of the closed SSL. The DGR™ system involves hydraulic containment of the dissolved-phase site-specific VOCs with groundwater extraction in combination with treated groundwater injection to enhance advective flushing by creating the dynamic gradients required to reverse the processes of plume development. The objective of the Phase 1 DGR™ system is to reduce site-specific VOCs (from an upgradient source not related to the closed SSL) in groundwater downgradient of the closed SSL to concentrations below MCLs within 5 years of initiating full-scale operation. As stated above, the operation of the Phase 1 DGR™ system since October 2019 may have had an influence on diffuse VOC concentration distribution locally, causing temporary increases or decreases that are not representative of ambient groundwater conditions without operation of an interim measure. As discussed in the Report, since implementation of the Phase 1 DGR™ system in 2019, PCE and TCE concentrations within the Riverview Plat neighborhood in the shallow portion of the upper aquifer have decreased to below the respective vapor intrusion screening levels, and it is expected that site-specific VOC concentrations will continue to decrease overall as operation continues. The active groundwater remediation in this area interferes with the evaluation for the potential impacts to groundwater from the closed SSL.

Additionally, in 2022, the U.S. EPA issued the Final Decision and Response to comments (U.S. EPA 2022). In response to this milestone towards remedy implementation, a Corrective Measures Implementation (CMI) Work Plan (Arcadis 2023a), that included a current QAPP, was submitted to the U.S. EPA. Approval of the CMI Work Plan was received on February 7, 2024, and progress with source remedy implementation is planned for 2024 and forward.

Given the robust data set collected over the past several decades which indicates that the closed NSL and SSL are not contributing hazardous constituents to groundwater, and that source area remediation will be implemented in 2024, additional groundwater sampling and evaluation for the closed North and South Settling Lagoons is unnecessary and utilizes finite Federal funding that could be used on efforts directly related to source remediation.

**Tables**

Table A-1 – Summary Statistics and Trend Results

Table A-2 – Matrix of Trend Results

**Figures**

Figure A-1 – Closed North Settling Lagoon Upper Aquifer Potentiometric Surface Map – November 2022

Figure A-2 – Closed South Settling Lagoon Upper Aquifer Potentiometric Surface Map – November 2022

Figure A-3 – North Settling Lagoon (NSL) Data Plots for Key Constituents

Figure A-4 – South Settling Lagoon (SSL) Data Plots for Key Constituents

Figures A-5 through A-18 – Temporal Data Plots of Select Concentrations

Figure A-19 – PCE and TCE Concentrations in SSL Upgradient vs. Downgradient Wells

**Attachments**

Attachment A-1 – Ohio EPA eBusiness Excel Worksheet

Attachment A-2 – Groundwater Sampling Forms

Attachment A-3 – Laboratory Data Review Report

Attachment A-4 – Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2022

Attachment A-5 – Laboratory Analytical Reports

**References**

Arcadis, Inc. 2012. Corrective Measures Proposal, RACER Trust, Moraine, Ohio. December 31, 2012.

Arcadis Geraghty & Miller, Inc. 2002. Site-Wide Groundwater Monitoring Plan, General Motors Corporation, Moraine, Ohio. May 2002.

Arcadis. 2023a. Corrective Measures Implementation Work Plan, Revision 1, RACER Trust Moraine Facilities, Moraine, Ohio. August 25, 2023.

Arcadis. 2023b. RACER Trust Quality Assurance Project Plan, Moraine Facilities, Moraine, Ohio. August 2023.

U.S. EPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities - Unified Guidance.

U.S. EPA. 2022. Final Decision and Response to Comments. December 9, 2022.

# Tables

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**TABLE A-1**
**Summary Statistics and Trend Results**
**RACER Trust**
**Moraine, Ohio**
December 2023

| Well ID | Up or Down Gradient | Analyte | Figure | Date Range | FOD | Detected Results Summary (µg/L) | | | MCL (µg/L) | Linear Correlation $R^2$ | Mann-Kendall Test | | | Sen's Estimator of Slope | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Range | Mean | SD | | | Result | P-Value | S Value | Result | Slope (Units/Day) |
| HR-04 | North | 1,1,1-Trichloroethane | A-5 | 11/01 - 09/23 | 13 / 23 | 0.17 - 2.2 | 1.4 | 0.76 | 200 | **0.769** | UP | <0.001 | 158 | UP | 0.000275 |
| W-2-N | North | 1,1,1-Trichloroethane | -- | 11/01 - 09/23 | 5 / 23 | 0.25 - 0.48 | 0.34 | 0.093 | 200 | 0.0666 | NST | 0.143 | -30 | NT | 0 |
| W-3-N | North | 1,1,1-Trichloroethane | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 200 | -- | -- | -- | -- | -- | -- |
| W-4-N | North | 1,1,1-Trichloroethane | -- | 11/01 - 09/23 | 8 / 23 | 0.26 - 0.47 | 0.38 | 0.067 | 200 | 0.416 | DWN | 0.002 | -94 | NT | 0 |
| HR-04 | North | 1,1-Dichloroethane | -- | 11/01 - 09/23 | 20 / 23 | 0.77 - 5.5 | 2.5 | 1.4 | -- | 0.000572 | NST | 0.335 | 17 | NT | 0.0000253 |
| W-2-N | North | 1,1-Dichloroethane | -- | 11/01 - 09/23 | 8 / 23 | 0.19 - 0.36 | 0.29 | 0.056 | -- | 0.3 | DWN | 0.005 | -83 | NT | 0 |
| W-3-N | North | 1,1-Dichloroethane | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| W-4-N | North | 1,1-Dichloroethane | A-6 | 11/01 - 09/23 | 23 / 23 | 0.89 - 9 | 4.2 | 2.7 | -- | **0.825** | UP | <0.001 | 195 | UP | 0.000961 |
| HR-04 | North | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 1 / 23 | 0.19 - 0.19 | 0.19 | 0 | 7 | 0.0482 | NST | 0.164 | 14 | NT | 0 |
| W-2-N | North | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 7 | -- | -- | -- | -- | -- | -- |
| W-3-N | North | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 7 | -- | -- | -- | -- | -- | -- |
| W-4-N | North | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 7 | -- | -- | -- | -- | -- | -- |
| HR-04 | North | Benzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| W-2-N | North | Benzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| W-3-N | North | Benzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| W-4-N | North | Benzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| HR-04 | North | cis-1,2-Dichloroethene | A-7 | 11/01 - 09/23 | 14 / 23 | 0.23 - 0.73 | 0.43 | 0.16 | 70 | **0.692** | UP | <0.001 | 156 | UP | 0.0000679 |
| W-2-N | North | cis-1,2-Dichloroethene | A-8 | 11/01 - 09/23 | 23 / 23 | 0.89 - 2.8 | 1.6 | 0.46 | 70 | 0.225 | UP | 0.020 | 78 | NT | 0.0000642 |
| W-3-N | North | cis-1,2-Dichloroethene | -- | 11/01 - 09/23 | 23 / 23 | 9.7 - 160 | 61 | 49.2 | 70 | 0.865 | DWN | <0.001 | -232 | DWN | -0.0169 |
| W-4-N | North | cis-1,2-Dichloroethene | A-9 | 11/01 - 09/23 | 23 / 23 | 1.6 - 14 | 7 | 3.4 | 70 | 0.231 | UP | 0.034 | 70 | NT | 0.000612 |
| HR-04 | North | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| W-2-N | North | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| W-3-N | North | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| W-4-N | North | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| HR-04 | North | Tetrachloroethene | -- | 11/01 - 09/23 | 14 / 23 | 0.16 - 1.3 | 0.46 | 0.3 | 5 | 0.577 | DWN | <0.001 | -165 | DWN | -0.0000713 |
| W-2-N | North | Tetrachloroethene | -- | 11/01 - 09/23 | 1 / 23 | 0.31 - 0.31 | 0.31 | 0 | 5 | 0.0669 | NST | 0.129 | -16 | NT | 0 |
| W-3-N | North | Tetrachloroethene | -- | 11/01 - 09/23 | 8 / 23 | 0.52 - 9 | 2.4 | 3 | 5 | 0.244 | DWN | 0.004 | -85 | NT | 0 |
| W-4-N | North | Tetrachloroethene | -- | 11/01 - 09/23 | 20 / 23 | 0.26 - 1.7 | 0.8 | 0.36 | 5 | 0.207 | DWN | 0.007 | -94 | DWN | -0.000103 |
| HR-04 | North | Toluene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 1000 | -- | -- | -- | -- | -- | -- |
| W-2-N | North | Toluene | -- | 11/01 - 09/23 | 1 / 23 | 0.28 - 0.28 | 0.28 | 0 | 1000 | 0.0259 | NST | 0.249 | -10 | NT | 0 |
| W-3-N | North | Toluene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 1000 | -- | -- | -- | -- | -- | -- |
| W-4-N | North | Toluene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 1000 | -- | -- | -- | -- | -- | -- |
| HR-04 | North | trans-1,2-Dichloroethene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 100 | -- | -- | -- | -- | -- | -- |
| W-2-N | North | trans-1,2-Dichloroethene | -- | 11/01 - 09/23 | 4 / 23 | 0.18 - 0.28 | 0.22 | 0.043 | 100 | 0.00533 | NST | 0.516 | 0 | NT | 0 |
| W-3-N | North | trans-1,2-Dichloroethene | -- | 11/01 - 09/23 | 18 / 23 | 0.23 - 2.2 | 0.96 | 0.59 | 100 | 0.628 | DWN | <0.001 | -192 | DWN | -0.000215 |
| W-4-N | North | trans-1,2-Dichloroethene | A-10 | 11/01 - 09/23 | 19 / 23 | 0.19 - 1.3 | 0.65 | 0.31 | 100 | 0.284 | UP | 0.002 | 110 | UP | 0.0000905 |
| HR-04 | North | Trichloroethene | -- | 11/01 - 09/23 | 18 / 23 | 0.27 - 1 | 0.41 | 0.2 | 5 | 0.372 | DWN | 0.008 | -91 | DWN | -0.0000360 |
| W-2-N | North | Trichloroethene | -- | 11/01 - 09/23 | 18 / 23 | 0.2 - 1.9 | 0.96 | 0.47 | 5 | 0.000827 | NST | 0.447 | -6 | NT | 0 |
| W-3-N | North | Trichloroethene | -- | 11/01 - 09/23 | 2 / 23 | 1.7 - 2.1 | 1.9 | 0.28 | 5 | 0.217 | DWN | 0.015 | -41 | NT | 0 |
| W-4-N | North | Trichloroethene | -- | 11/01 - 09/23 | 23 / 23 | 6.1 - 15 | 9 | 2.2 | 5 | 0.0133 | NST | 0.365 | -14 | NT | -0.0000455 |
| HR-04 | North | Vinyl chloride | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- |
| W-2-N | North | Vinyl chloride | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- |
| W-3-N | North | Vinyl chloride | -- | 11/01 - 09/23 | 23 / 23 | 0.71 - 9.6 | 3.3 | 2.8 | 2 | 0.758 | DWN | <0.001 | -202 | DWN | -0.000880 |
| W-4-N | North | Vinyl chloride | -- | 11/01 - 09/23 | 9 / 23 | 0.18 - 0.96 | 0.51 | 0.24 | 2 | 0.439 | DWN | <0.001 | -116 | NT | -0.0000495 |
| HR-04 | North | Xylene (total) | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |
| W-2-N | North | Xylene (total) | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |
| W-3-N | North | Xylene (total) | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |
| W-4-N | North | Xylene (total) | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |
| HR-17 | South | 1,1,1-Trichloroethane | -- | 11/01 - 09/23 | 8 / 23 | 0.39 - 7.4 | 2.7 | 2.4 | 200 | 0.127 | NST | 0.166 | 32 | NT | 0 |
| W-2-S | South | 1,1,1-Trichloroethane | -- | 11/01 - 09/23 | 22 / 23 | 0.59 - 1.8 | 1.3 | 0.39 | 200 | 0.544 | DWN | <0.001 | -123 | DWN | -0.000117 |
| W-3-S | South | 1,1,1-Trichloroethane | -- | 11/01 - 09/23 | 18 / 23 | 0.49 - 2.5 | 1.4 | 0.74 | 200 | 0.38 | DWN | <0.001 | -123 | DWN | -0.000216 |
| W-4-S | South | 1,1,1-Trichloroethane | -- | 11/01 - 09/23 | 26 / 27 | 0.71 - 2.9 | 1.6 | 0.52 | 200 | 0.444 | DWN | <0.001 | -175 | DWN | -0.000181 |
| HR-17 | South | 1,1-Dichloroethane | -- | 11/01 - 09/23 | 15 / 23 | 0.6 - 2.2 | 1.3 | 0.58 | -- | 0.0342 | NST | 0.097 | -49 | NT | -0.0000306 |
| W-2-S | South | 1,1-Dichloroethane | -- | 11/01 - 09/23 | 22 / 23 | 0.23 - 1.3 | 0.92 | 0.27 | -- | 0.352 | DWN | 0.002 | -112 | DWN | -0.0000730 |
| W-3-S | South | 1,1-Dichloroethane | -- | 11/01 - 09/23 | 11 / 23 | 0.21 - 1.2 | 0.62 | 0.32 | -- | 0.0972 | NST | 0.072 | 52 | NT | 0 |
| W-4-S | South | 1,1-Dichloroethane | -- | 11/01 - 09/23 | 23 / 27 | 0.87 - 2.7 | 1.6 | 0.42 | -- | 0.00616 | NST | 0.137 | 53 | NT | 0.0000575 |
| HR-17 | South | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 1 / 23 | 0.54 - 0.54 | 0.54 | 0 | 7 | 0.0482 | NST | 0.164 | 14 | NT | 0 |
| W-2-S | South | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 7 | -- | -- | -- | -- | -- | -- |
| W-3-S | South | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 7 | -- | -- | -- | -- | -- | -- |
| W-4-S | South | 1,1-Dichloroethene | -- | 11/01 - 09/23 | 1 / 27 | 0.21 - 0.21 | 0.21 | 0 | 7 | 0.00964 | NST | 0.424 | -4 | NT | 0 |
| HR-17 | South | Benzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| W-2-S | South | Benzene | -- | 11/01 - 09/23 | 1 / 23 | 0.43 - 0.43 | 0.43 | 0 | 5 | 0.00851 | NST | 0.353 | -6 | NT | 0 |

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**TABLE A-1**
**Summary Statistics and Trend Results**
**RACER Trust**
**Moraine, Ohio**
December 2023

| Well ID | Up or Down Gradient | Analyte | Figure | Date Range | FOD | Detected Results Summary (µg/L) | | | MCL (µg/L) | Linear Correlation $R^2$ | Mann-Kendall Test | | | Sen's Estimator of Slope | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Range | Mean | SD | | | Result | P-Value | S Value | Result | Slope (Units/Day) |
| Table A-1 continued | | | | | | | | | | | | | | | |
| W-3-S | South | Benzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| W-4-S | South | Benzene | -- | 11/01 - 09/23 | 0 / 27 | -- | -- | -- | 5 | -- | -- | -- | -- | -- | -- |
| HR-17 | South | cis-1,2-Dichloroethene | -- | 11/01 - 09/23 | 16 / 23 | 1.1 - 7.1 | 2.7 | 1.6 | 70 | 0.379 | DWN | <0.001 | -124 | DWN | -0.000422 |
| W-2-S | South | cis-1,2-Dichloroethene | A-11 | 11/01 - 09/23 | 22 / 23 | 0.29 - 2.4 | 1.2 | 0.55 | 70 | **0.240** | UP | 0.004 | 100 | UP | 0.000110 |
| W-3-S | South | cis-1,2-Dichloroethene | A-12 | 11/01 - 09/23 | 14 / 23 | 0.33 - 4.6 | 1.5 | 1.1 | 70 | **0.290** | UP | 0.002 | 106 | NT | 0.000190 |
| W-4-S | South | cis-1,2-Dichloroethene | A-13 | 11/01 - 09/23 | 24 / 27 | 1 - 22 | 7.5 | 4.8 | 70 | **0.0310** | UP | 0.011 | 110 | UP | 0.00105 |
| HR-17 | South | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| W-2-S | South | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| W-3-S | South | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| W-4-S | South | Ethylbenzene | -- | 11/01 - 09/23 | 0 / 27 | -- | -- | -- | 700 | -- | -- | -- | -- | -- | -- |
| HR-17 | South | Tetrachloroethene | A-14 | 11/01 - 09/23 | 23 / 23 | 3.3 - 200 | 113 | 57.3 | 5 | **0.781** | UP | <0.001 | 176 | UP | 0.0206 |
| W-2-S | South | Tetrachloroethene | A-15 | 11/01 - 09/23 | 16 / 23 | 0.31 - 28 | 4.6 | 8.3 | 5 | **0.327** | UP | <0.001 | 127 | UP | 0.000116 |
| W-3-S | South | Tetrachloroethene | A-16 | 11/01 - 09/23 | 23 / 23 | 0.44 - 150 | 37.2 | 47.6 | 5 | **0.757** | UP | <0.001 | 211 | UP | 0.0157 |
| W-4-S | South | Tetrachloroethene | A-17 | 11/01 - 09/23 | 27 / 27 | 13 - 74 | 34.6 | 18.2 | 5 | **0.278** | UP | <0.001 | 177 | UP | 0.00440 |
| HR-17 | South | Toluene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 1000 | -- | -- | -- | -- | -- | -- |
| W-2-S | South | Toluene | -- | 11/01 - 09/23 | 1 / 23 | 0.25 - 0.25 | 0.25 | 0 | 1000 | 0.0842 | NST | 0.100 | -18 | NT | 0 |
| W-3-S | South | Toluene | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 1000 | -- | -- | -- | -- | -- | -- |
| W-4-S | South | Toluene | -- | 11/01 - 09/23 | 1 / 27 | 0.25 - 0.25 | 0.25 | 0 | 1000 | 0.0634 | NST | 0.089 | -22 | NT | 0 |
| HR-17 | South | trans-1,2-Dichloroethene | -- | 11/01 - 09/23 | 11 / 23 | 0.46 - 1.6 | 0.96 | 0.37 | 100 | 0.332 | DWN | 0.002 | -103 | NT | -0.0000683 |
| W-2-S | South | trans-1,2-Dichloroethene | -- | 11/01 - 09/23 | 5 / 23 | 0.3 - 0.47 | 0.37 | 0.069 | 100 | 0.0680 | NST | 0.086 | 38 | NT | 0 |
| W-3-S | South | trans-1,2-Dichloroethene | -- | 11/01 - 09/23 | 6 / 23 | 0.19 - 0.59 | 0.39 | 0.19 | 100 | 0.0121 | NST | 0.245 | 21 | NT | 0 |
| W-4-S | South | trans-1,2-Dichloroethene | -- | 11/01 - 09/23 | 23 / 27 | 0.43 - 2.1 | 1.2 | 0.34 | 100 | 0.0327 | NST | 0.271 | 30 | NT | 0.0000200 |
| HR-17 | South | Trichloroethene | -- | 11/01 - 09/23 | 18 / 23 | 0.92 - 160 | 40.3 | 51 | 5 | 0.00116 | NST | 0.197 | -33 | NT | -0.000692 |
| W-2-S | South | Trichloroethene | -- | 11/01 - 09/23 | 23 / 23 | 2.8 - 23 | 6.2 | 3.8 | 5 | 0.000914 | NST | 0.500 | 1 | NT | 0 |
| W-3-S | South | Trichloroethene | -- | 11/01 - 09/23 | 21 / 23 | 1.5 - 97 | 11.4 | 21.7 | 5 | 0.0336 | NST | 0.289 | 22 | NT | 0.000223 |
| W-4-S | South | Trichloroethene | A-18 | 11/01 - 09/23 | 27 / 27 | 0.92 - 72 | 22.3 | 18.4 | 5 | **0.0515** | UP | 0.036 | 87 | NT | 0.00308 |
| HR-17 | South | Vinyl chloride | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- |
| W-2-S | South | Vinyl chloride | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- |
| W-3-S | South | Vinyl chloride | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- |
| W-4-S | South | Vinyl chloride | -- | 11/01 - 09/23 | 0 / 27 | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- |
| HR-17 | South | Xylene (total) | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |
| W-2-S | South | Xylene (total) | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |
| W-3-S | South | Xylene (total) | -- | 11/01 - 09/23 | 0 / 23 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |
| W-4-S | South | Xylene (total) | -- | 11/01 - 09/23 | 0 / 27 | -- | -- | -- | 10000 | -- | -- | -- | -- | -- | -- |

**Abbreviations:**

-- = insufficient data for calculating statistics (n < 4)
FOD = frequency of detection (# detects / # samples)
MCL = maximum contaminant level
mean = arithmetic mean
$R^2$ = linear regression coefficient of determination
SD = standard deviation

NST = no significant trend
NT = no trend
DWN = downward trend
UP = upward trend

**Notes:**

1. All analytical results are in µg/L. Result values less than 10 are reported to 2 significant figures; values greater than 10 are reported to 3 significant figures. P-values are reported to 3 decimal places.
2. Trend results are presented when at least four samples and one detected value are available.
3. Non-detects were assigned a common value less than the minimum detected value, equal to half the minimum reporting limit (RL) in the dataset (USEPA, 2009). If half the minimum RL was greater than the minimum detected value, then half the minimum detect was assigned.
4. Statistically significant trend defined as having p-value ≤ 0.05, or 95% confidence.
5. Field duplicate results were not included.
6. Statistical testing of the null hypothesis: no significant trend (slope = 0) and the alternative hypothesis: significant trend (slope ≠ 0) with 95% confidence.
7. $R^2$ values are bolded if $R^2$>0.5 and MK results shows siginficant upward trend.

**Reference:**

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities. Unified Guidance. EPA/530/R-09/007, 2009.

**TABLE A-2**
**Matrix of Trend Results**
**RACER Trust**
**Moraine, Ohio**
December 2023

| Lagoon: | North | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Well: | HR-04 | | | W-2-N | | | W-3-N | | | W-4-N | | |
| VOC Constituent | $R^2$ | MK | SSE | $R^2$ | MK | SSE | $R^2$ | MK | SSE | $R^2$ | MK | SSE |
| 1,1,1-Trichloroethane | >0.5 | ▲ | ▲ | -- | ↔ | ↔ | -- | ND | ND | -- | ▼ | ↔ |
| 1,1-Dichloroethane | -- | ↔ | ↔ | -- | ▼ | ↔ | -- | ND | ND | >0.5 | ▲ | ▲ |
| 1,1-Dichloroethene | -- | ↔ | ↔ | -- | ND | ND | -- | ND | ND | -- | ND | ND |
| Benzene | -- | ND | ND | -- | ND | ND | -- | ND | ND | -- | ND | ND |
| cis-1,2-Dichloroethene | >0.5 | ▲ | ▲ | -- | ▲ | ↔ | >0.5 | ▼ | ▼ | -- | ▲ | ↔ |
| Ethylbenzene | -- | ND | ND | -- | ND | ND | -- | ND | ND | -- | ND | ND |
| Tetrachloroethene | >0.5 | ▼ | ▼ | -- | ↔ | ↔ | -- | ▼ | ↔ | -- | ▼ | ▼ |
| Toluene | -- | ND | ND | -- | ↔ | ↔ | -- | ND | ND | -- | ND | ND |
| trans-1,2-Dichloroethene | -- | ND | ND | -- | ↔ | ↔ | >0.5 | ▼ | ▼ | -- | ▲ | ▲ |
| Trichloroethene | -- | ▼ | ▼ | -- | ↔ | ↔ | -- | ▼ | ↔ | -- | ↔ | ↔ |
| Vinyl chloride | -- | ND | ND | -- | ND | ND | >0.5 | ▼ | ▼ | -- | ▼ | ↔ |
| Xylene (total) | -- | ND | ND | -- | ND | ND | -- | ND | ND | -- | ND | ND |
| **Lagoon:** | **South** | | | | | | | | | | | |
| **Well:** | **HR-17** | | | **W-2-S** | | | **W-3-S** | | | **W-4-S** | | |
| **VOC Constituent** | $R^2$ | MK | SSE | $R^2$ | MK | SSE | $R^2$ | MK | SSE | $R^2$ | MK | SSE |
| 1,1,1-Trichloroethane | -- | ↔ | ↔ | >0.5 | ▼ | ▼ | -- | ▼ | ▼ | -- | ▼ | ▼ |
| 1,1-Dichloroethane | -- | ↔ | ↔ | -- | ▼ | ▼ | -- | ↔ | ↔ | -- | ↔ | ↔ |
| 1,1-Dichloroethene | -- | ↔ | ↔ | -- | ND | ND | -- | ND | ND | -- | ↔ | ↔ |
| Benzene | -- | ND | ND | -- | ↔ | ↔ | -- | ND | ND | -- | ND | ND |
| cis-1,2-Dichloroethene | -- | ▼ | ▼ | -- | ▲ | ▲ | -- | ▲ | ↔ | -- | ▲ | ▲ |
| Ethylbenzene | -- | ND | ND | -- | ND | ND | -- | ND | ND | -- | ND | ND |
| Tetrachloroethene | >0.5 | ▲ | ▲ | -- | ▲ | ▲ | >0.5 | ▲ | ▲ | -- | ▲ | ▲ |
| Toluene | -- | ND | ND | -- | ↔ | ↔ | -- | ND | ND | -- | ↔ | ↔ |
| trans-1,2-Dichloroethene | -- | ▼ | ↔ | -- | ↔ | ↔ | -- | ↔ | ↔ | -- | ↔ | ↔ |
| Trichloroethene | -- | ↔ | ↔ | -- | ↔ | ↔ | -- | ↔ | ↔ | -- | ▲ | ↔ |
| Vinyl chloride | -- | ND | ND | -- | ND | ND | -- | ND | ND | -- | ND | ND |
| Xylene (total) | -- | ND | ND | -- | ND | ND | -- | ND | ND | -- | ND | ND |

**Abbreviations:**

R2 : Linear regression coefficient of determination
MK : Mann-Kendall
SSE : Sen's Slope Estimator
-- : R2 less than 0.5
▲ : Increasing trend (alpha = 0.05)
▼ : Decreasing trend (alpha = 0.05)
ND : 100% Non-detect
↔ : No trend

# Figures

Path: T:_ENV\RACER_MORAINE\GIS_PRO_REPORT_FIGURES\GWMonitoringReport_2023.aprx\A-1_North Settling Lagoon Upper Aquifer Potentiometric Surface Map Last Saved By: jrapp Last Saved On: 2/14/2024 2:32 PM

**LEGEND**

- UPPER AQUIFER WELL
- DRAINAGE DITCH
- CURRENT BUILDING
- FORMER BUILDING/SITE FEATURE
- PROPERTY BOUNDARY
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)

W-4-N — WELL IDENTIFIER
708.68 — GROUNDWATER ELEVATION (FEET AMSL)

Notes:
1. Aerial Source; Vivid Advanced, dated 12/26/2021, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/14/2024.
2. Groundwater elevations were measured on September 11, 2023.
3. AMSL = Above Mean Sea Level

RACER TRUST
MORAINE, OHIO
**2023 GROUNDWATER MONITORING REPORT**

# CLOSED NORTH SETTLING LAGOON UPPER AQUIFER POTENTIOMETRIC SURFACE MAP

ARCADIS

FIGURE
**A-1**

Path: T:_ENV\RACER_MORAINE\GIS_PRO_REPORT_FIGURES\GWMonitoringReport_2023.aprx\A-2_South Settling Lagoon Upper Aquifer Potentiometric Surface Map Last Saved By: jrapp Last Saved On: 2/14/2024 3:31 PM

| Phase 1 DGR™ System | Average Flow Rate (gpm) (September 11, 2023) |
|---|---|
| EW-1 | 99.9 |
| EW-2 | 99.8 |
| EW-3 | 100.6 |
| IW-1 | 56.9 |
| IW-2 | 63.8 |
| IW-3 | 99.8 |
| IW-4 | 100.6 |
| **Total System** | 300.3 |

**LEGEND**

**UPPER AQUIFER**

- UPPER AQUIFER WELL

**PHASE 1 DRG™ (UPPER AQUIFER)**

- EXTRACTION WELL
- INJECTION WELL
- GROUNDWATER FLOW DIRECTION
- POTENTIOMETRIC CONTOUR (FEET AMSL, DASHED WHERE INFERRED)
- FORMER BUILDING/ SITE FEATURE
- PROPERTY BOUNDARY

W-4-S — WELL IDENTIFIER
706.00 — GROUNDWATER ELEVATION (FEET AMSL)

Notes:
1. Aerial Source; Vivid Advanced, dated 12/26/2021, serviced by ESRI World Imagery Service, accessed via ESRI ArcGIS Desktop on 2/14/2024.
2. Groundwater elevations were measured on September 12, 2023.
3. AMSL = Above Mean Sea Level
4. gpm = Gallons per Minute

RACER TRUST
MORAINE, OHIO
**2023 GROUNDWATER MONITORING REPORT**

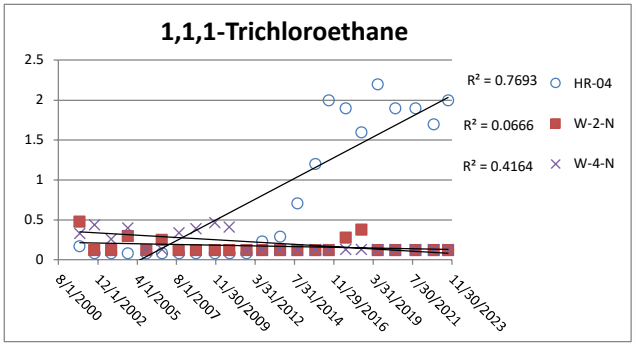
# CLOSED SOUTH SETTLING LAGOON UPPER AQUIFER POTENTIOMETRIC SURFACE MAP

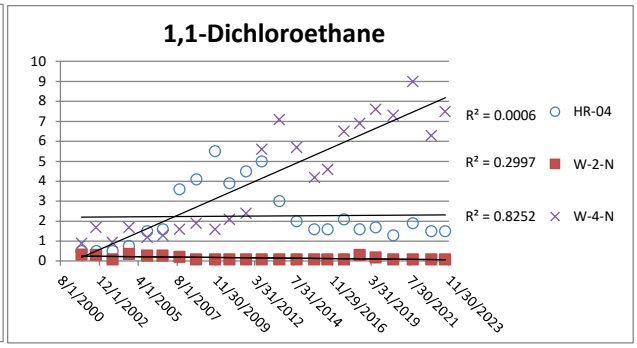
ARCADIS

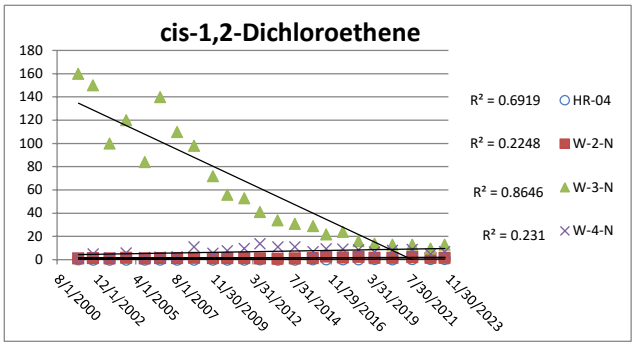
FIGURE
**A-2**

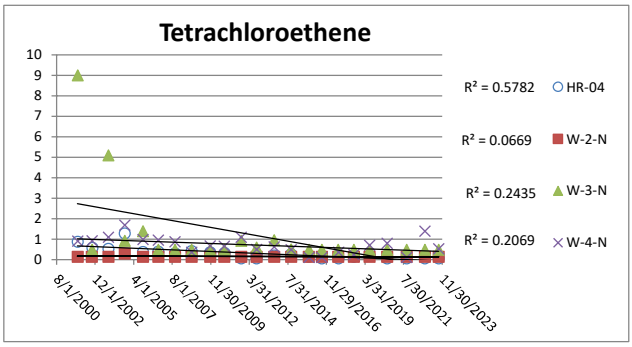
ARCADIS

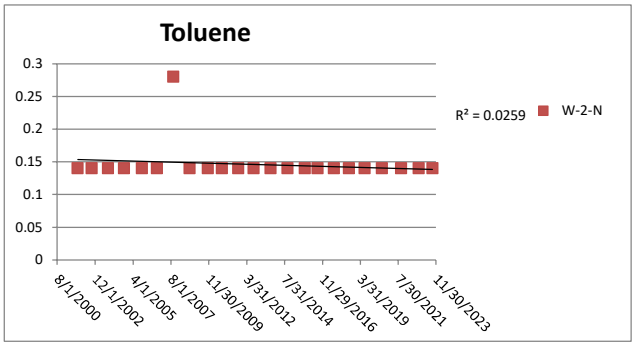
# Figure A-3:
# North Settling Lagoon (NSL) Data Plots for Key Constituents

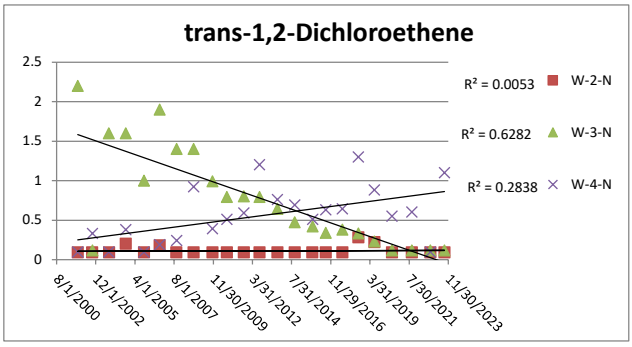


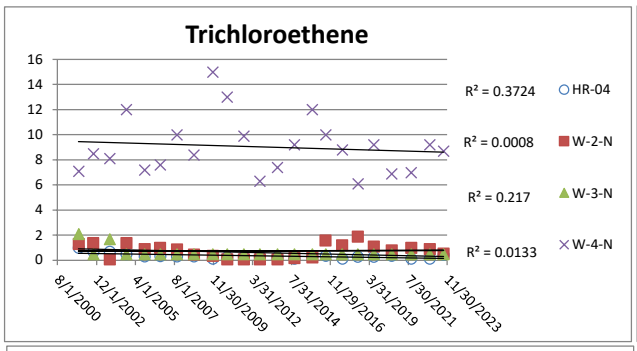



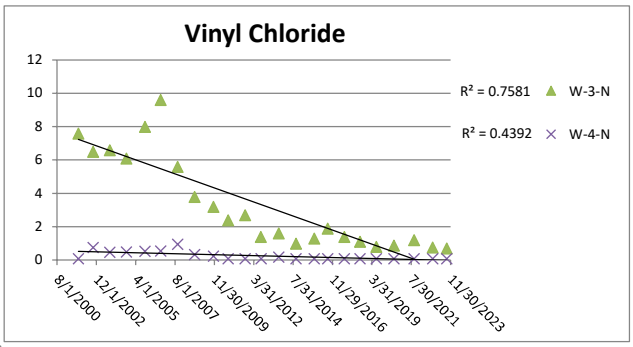



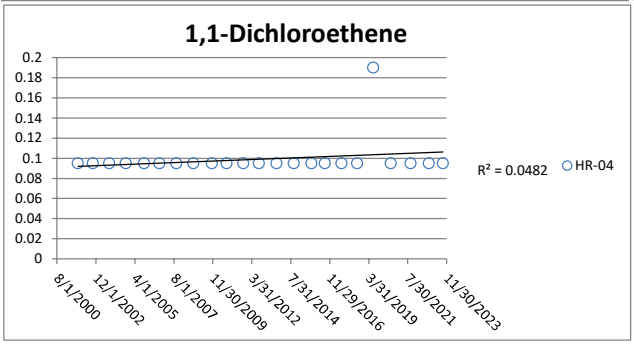



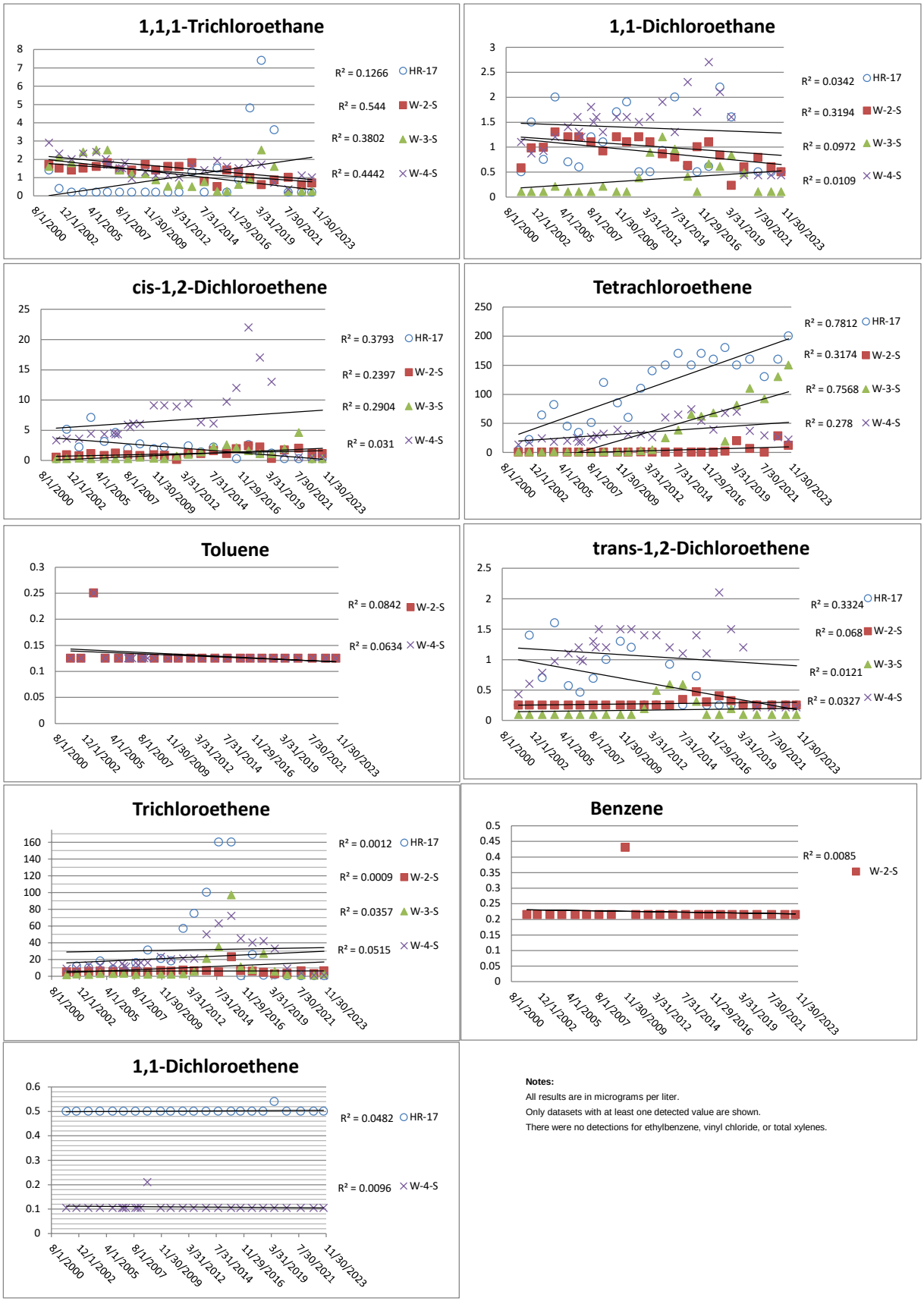




**Notes:**
All results are in micrograms per liter.
Only datasets with at least one detected value are shown.
There were no detections for benzene, ethylbenzene, or total xylenes.

ARCADIS

# Figure A-4
# South Settling Lagoon (SSL) Data Plots for Key Constituents

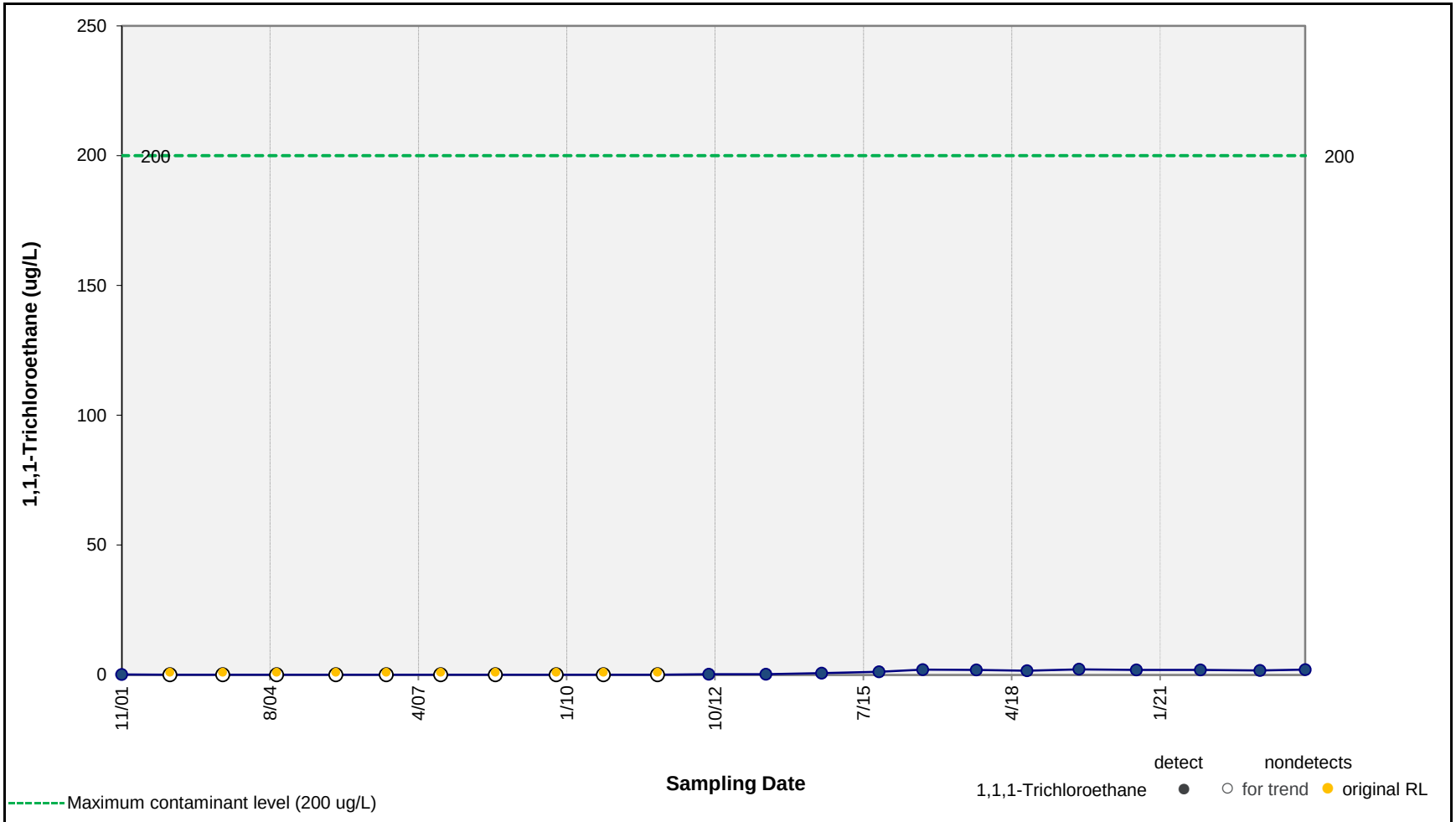



**Notes:**

All results are in micrograms per liter.

Only datasets with at least one detected value are shown.

There were no detections for ethylbenzene, vinyl chloride, or total xylenes.




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 2.8E-04 ug/L Per Day

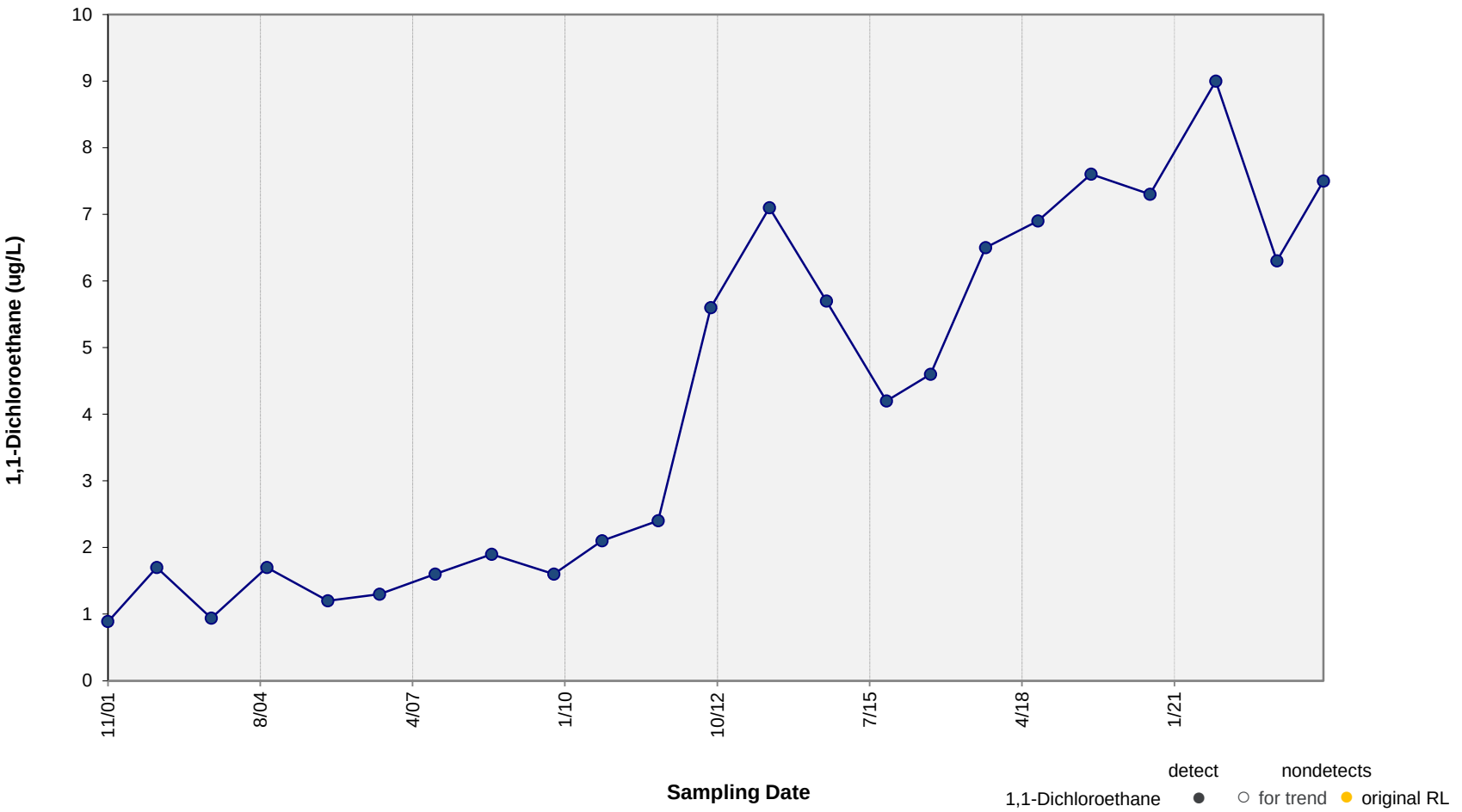
95% Confidence Interval = 1.1E-04 to 3.6E-04 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – 1,1,1-Trichloroethane in Well HR-04**

RACER Trust, Moraine, Ohio

**FIGURE A-5**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 9.6E-04 ug/L Per Day

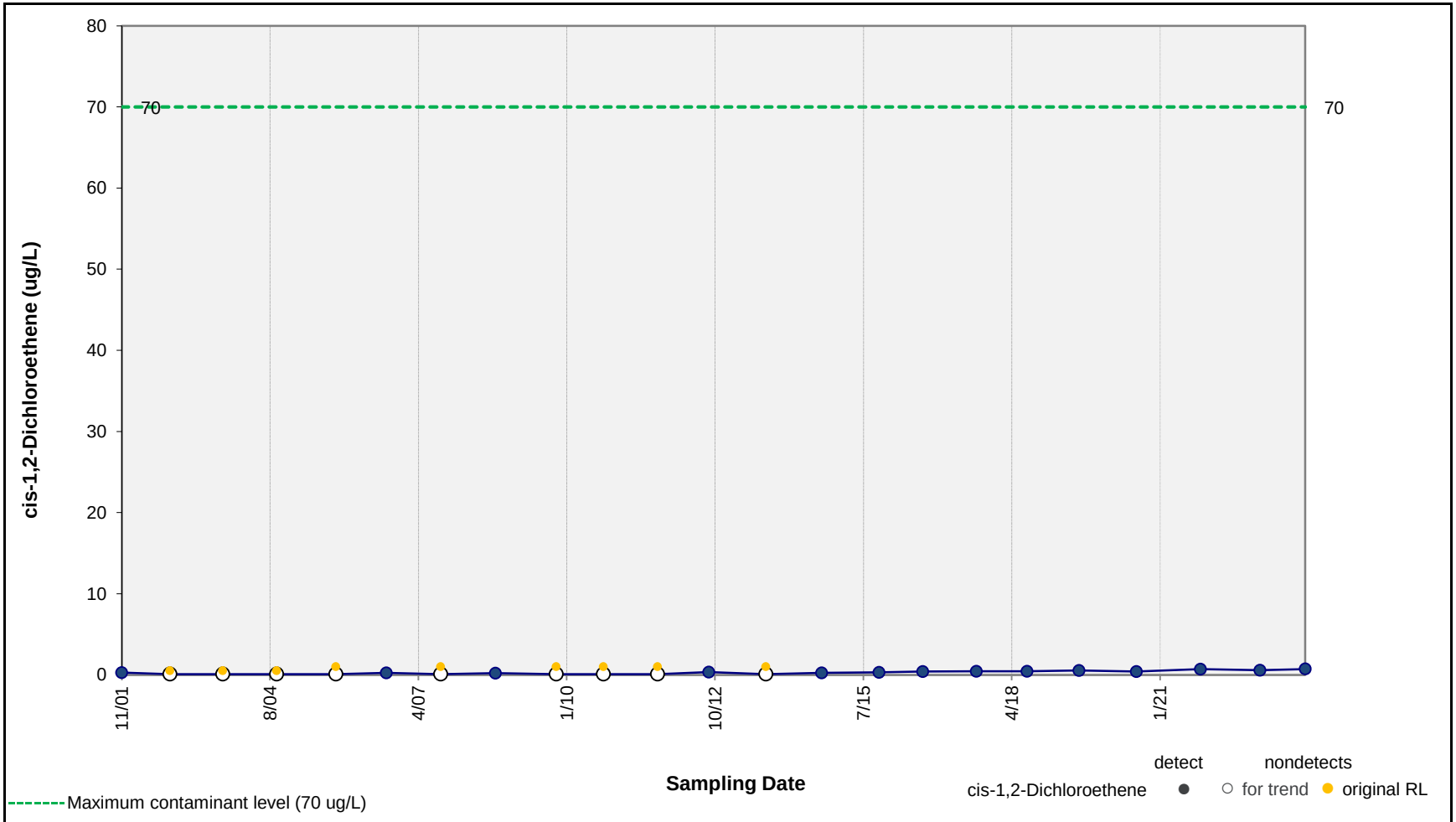
95% Confidence Interval = 7.2E-04 to 1.2E-03 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – 1,1-Dichloroethane in Well W-4-N**

RACER Trust, Moraine, Ohio

**FIGURE A-6**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 6.8E-05 ug/L Per Day

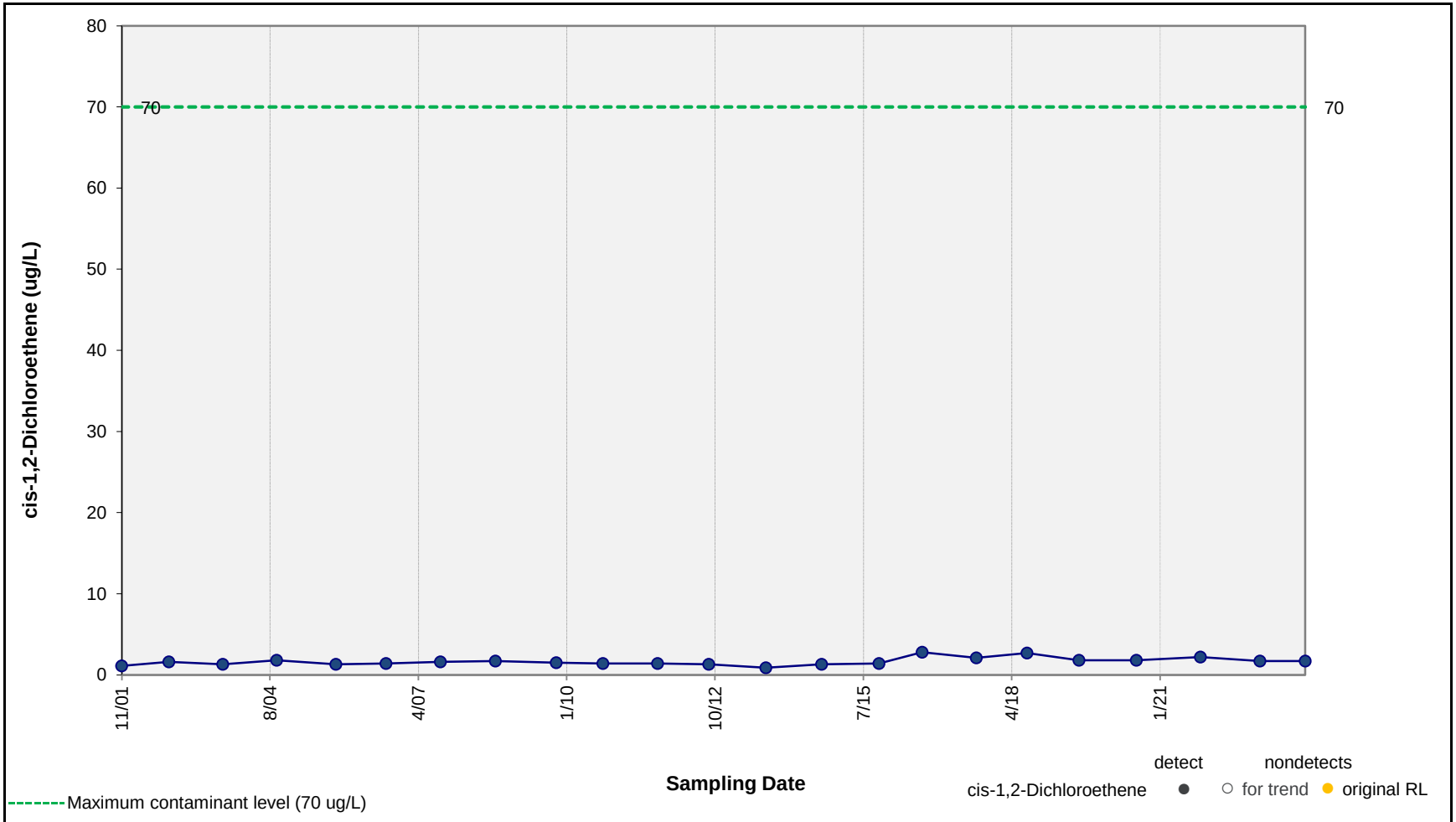
95% Confidence Interval = 4.4E-05 to 8.9E-05 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well HR-04**

RACER Trust, Moraine, Ohio

**FIGURE A-7**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = 0.020 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **No trend**

Median Slope Estimate = 6.4E-05 ug/L Per Day

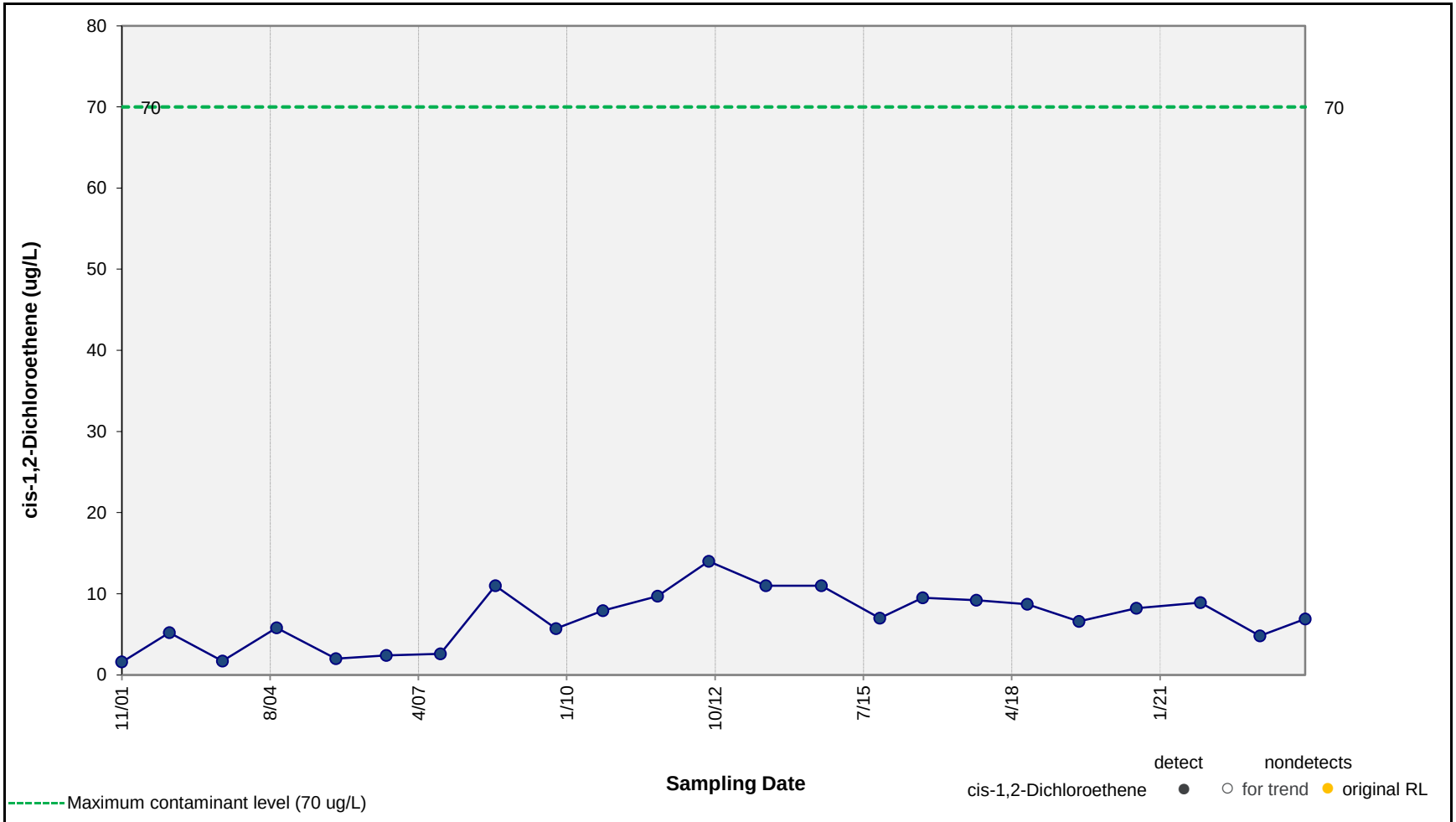
95% Confidence Interval = 0.0E+00 to 1.3E-04 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-2-N**

RACER Trust, Moraine, Ohio

**FIGURE A-8**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = 0.034 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **No Significant Trend**

Median Slope Estimate = 6.1E-04 ug/L Per Day

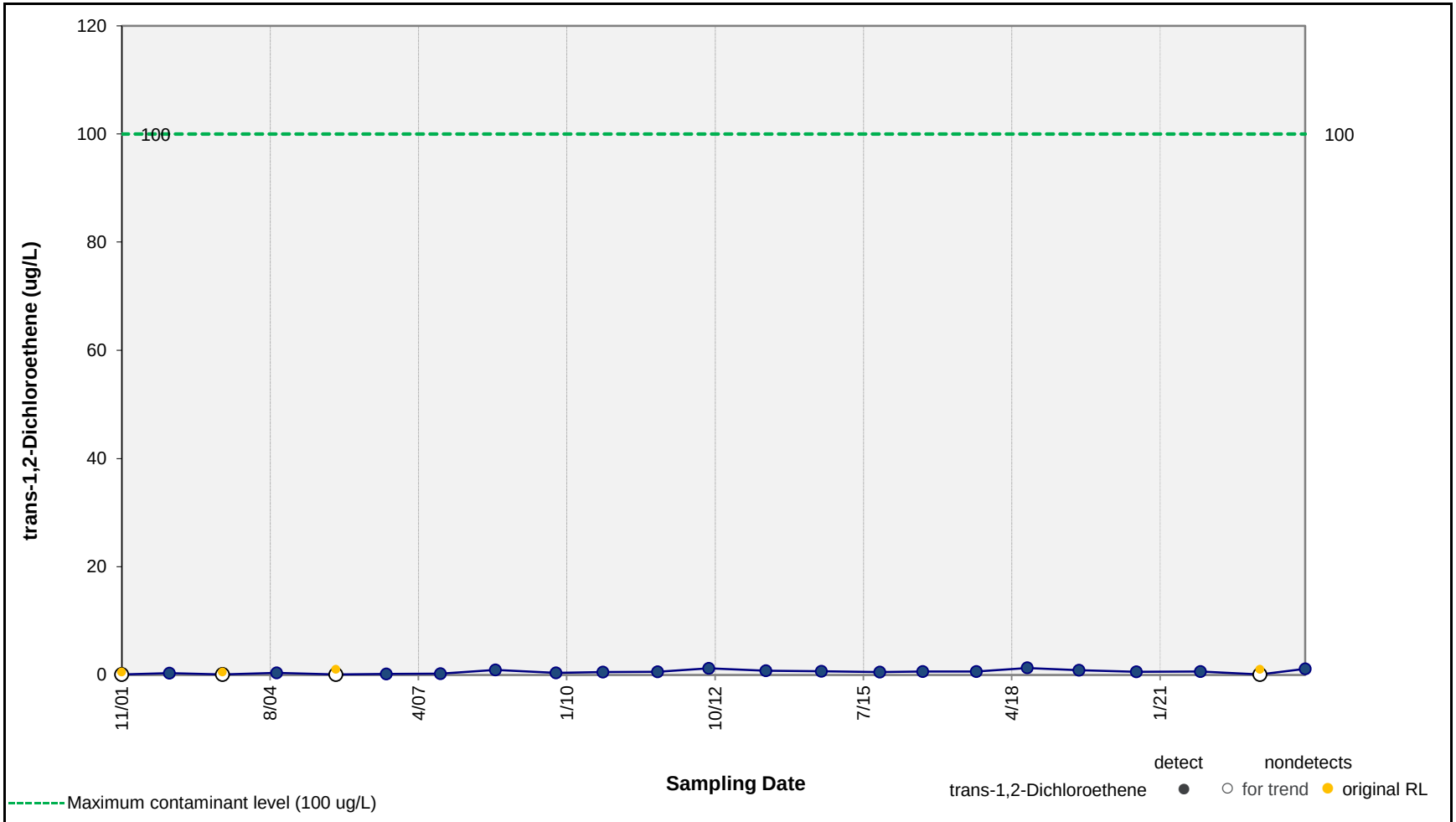
95% Confidence Interval = -4.5E-05 to 1.2E-03 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-4-N**

RACER Trust, Moraine, Ohio

**FIGURE A-9**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = 0.002 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 9.0E-05 ug/L Per Day

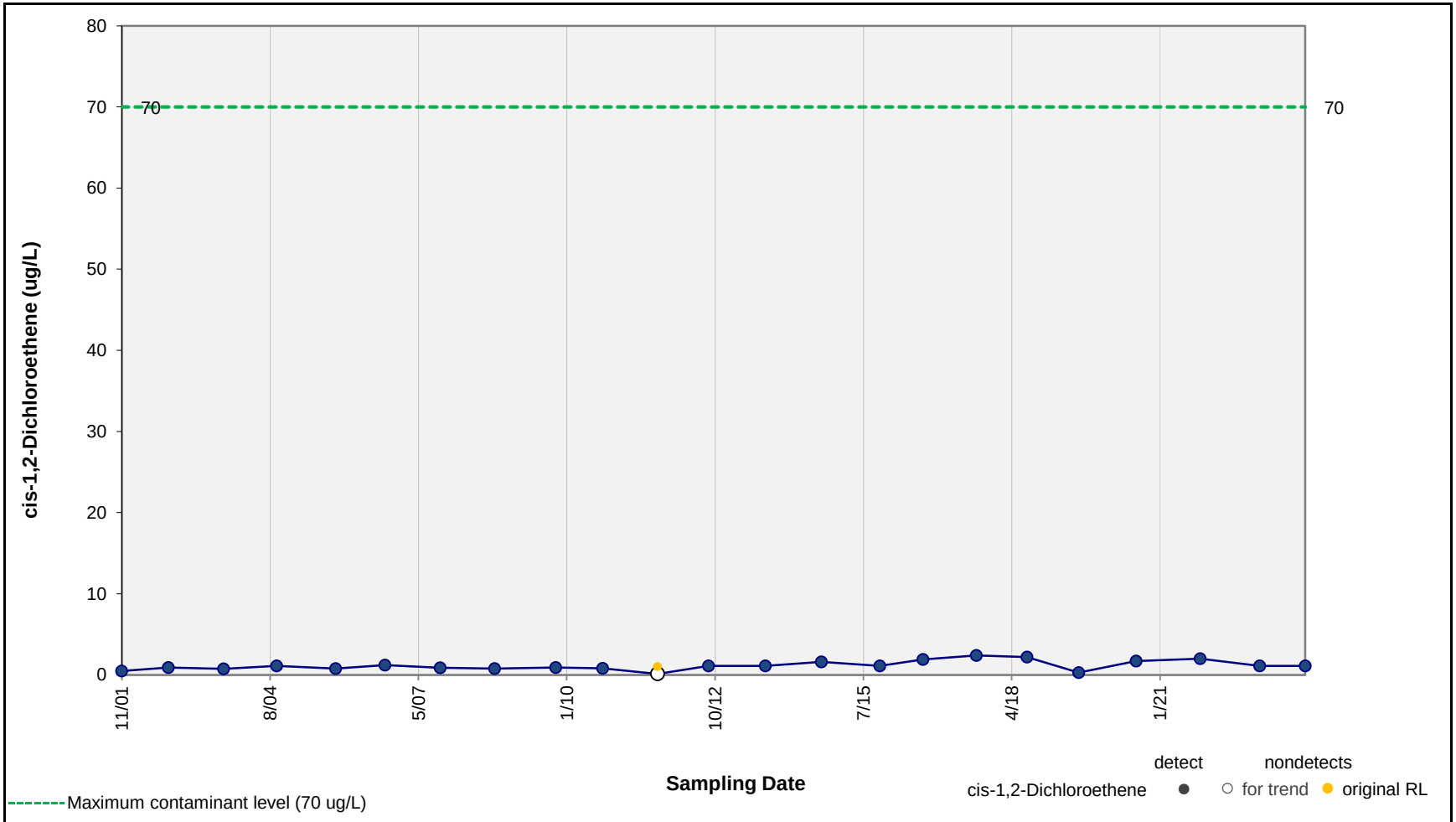
95% Confidence Interval = 3.7E-05 to 1.3E-04 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – trans-1,2-Dichloroethene in Well W-4-N**

RACER Trust, Moraine, Ohio

**FIGURE A-10**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = 0.004 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 1.1E-04 ug/L Per Day

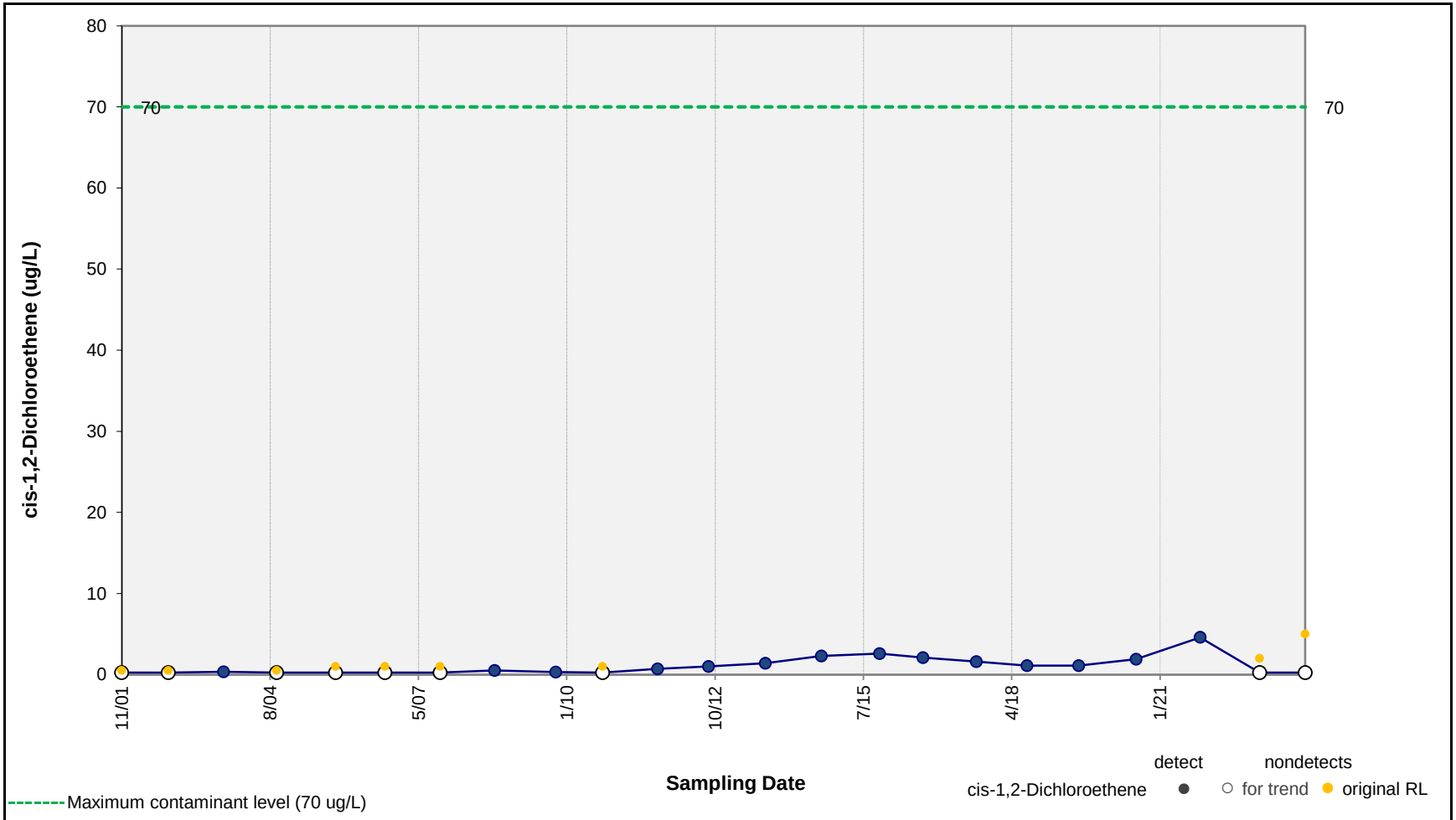
95% Confidence Interval = 2.7E-05 to 2.1E-04 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-2-S**

RACER Trust, Moraine, Ohio

**FIGURE A-11**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = 0.002 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **No trend**

Median Slope Estimate = 1.9E-04 ug/L Per Day

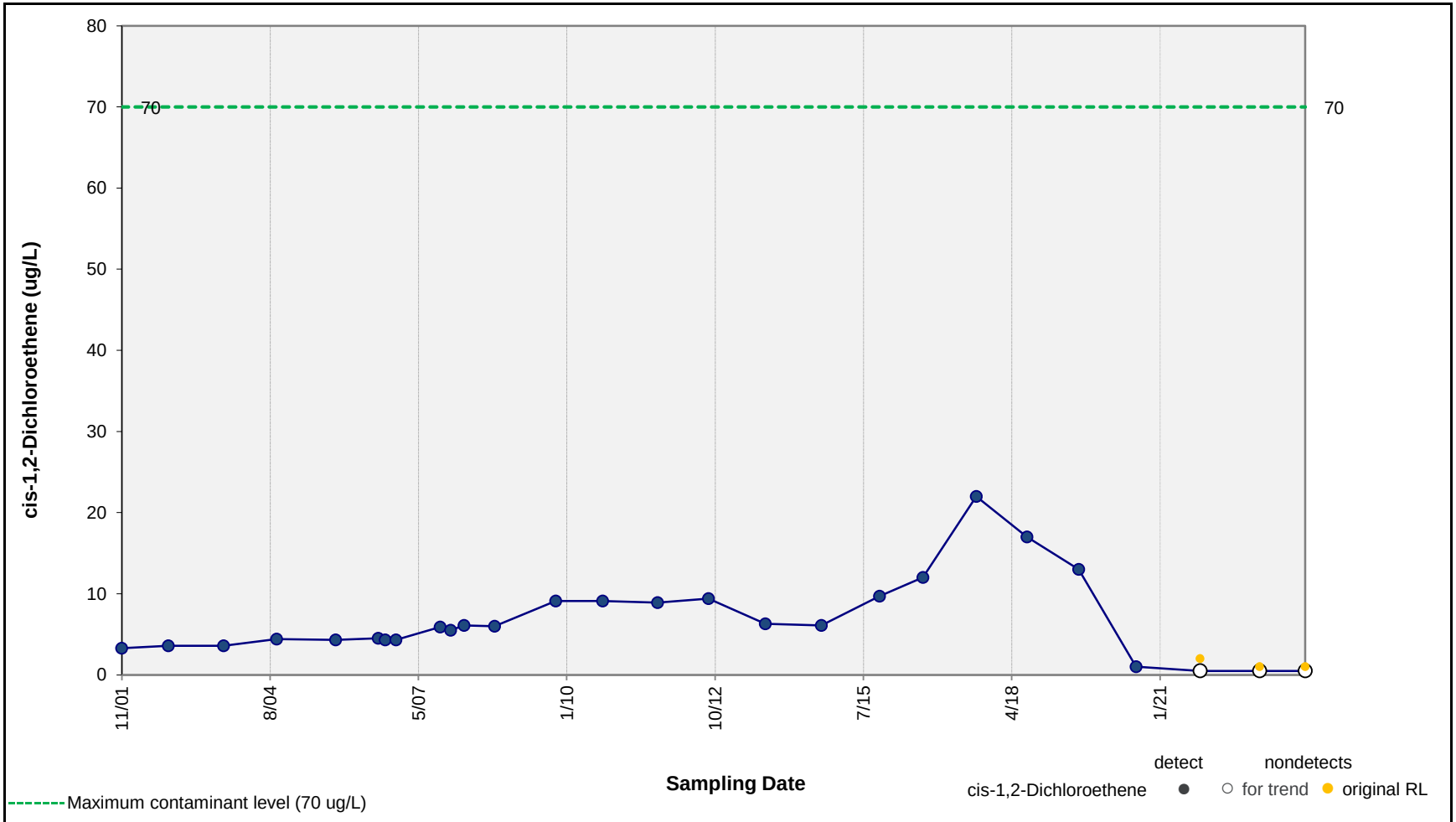
95% Confidence Interval = 0.0E+00 to 3.3E-04 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-3-S**

RACER Trust, Moraine, Ohio

**FIGURE A-12**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = 0.011 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 1.1E-03 ug/L Per Day

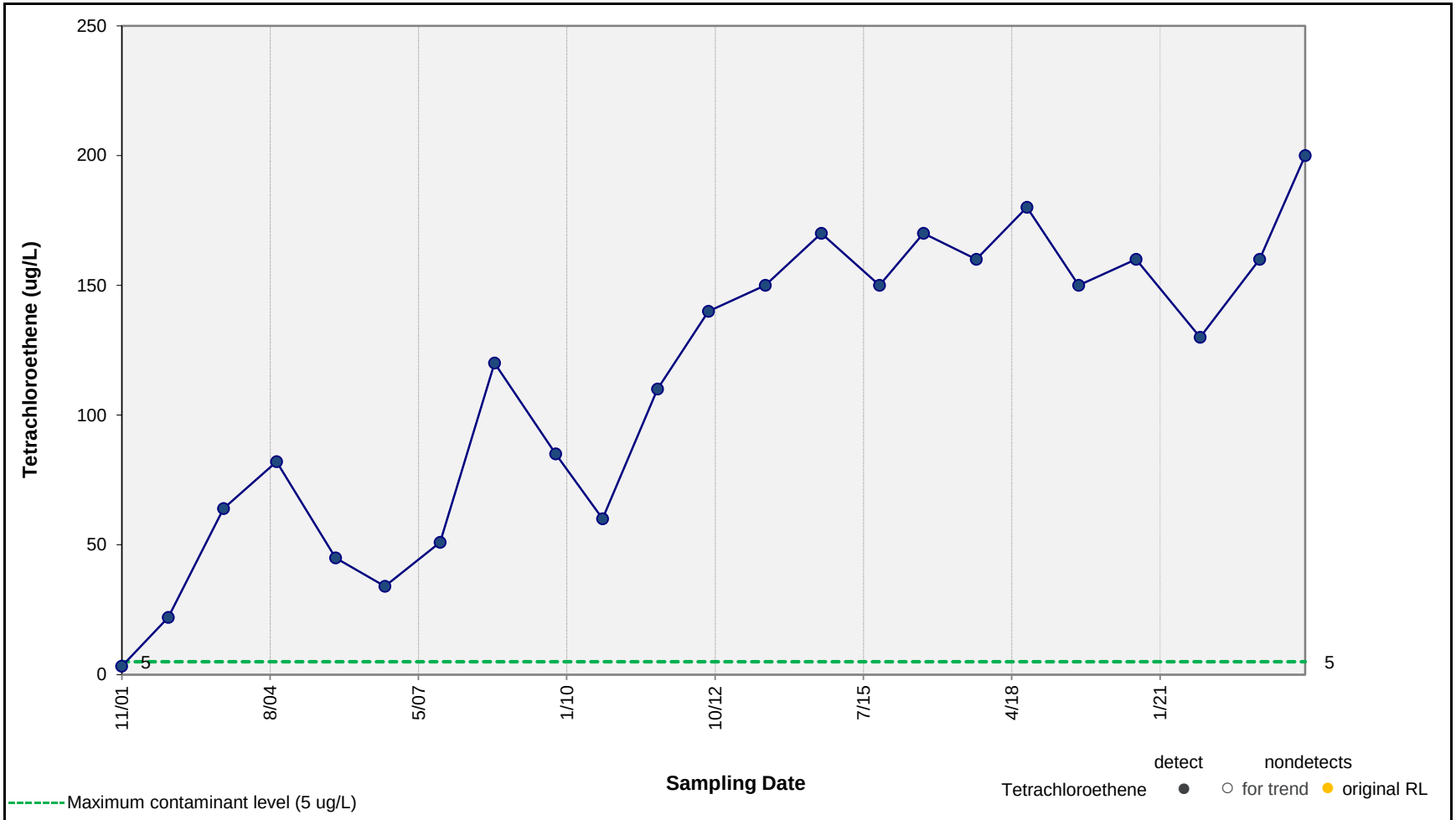
95% Confidence Interval = 1.3E-04 to 1.7E-03 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – cis-1,2-Dichloroethene in Well W-4-S**

RACER Trust, Moraine, Ohio

**FIGURE A-13**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 2.1E-02 ug/L Per Day

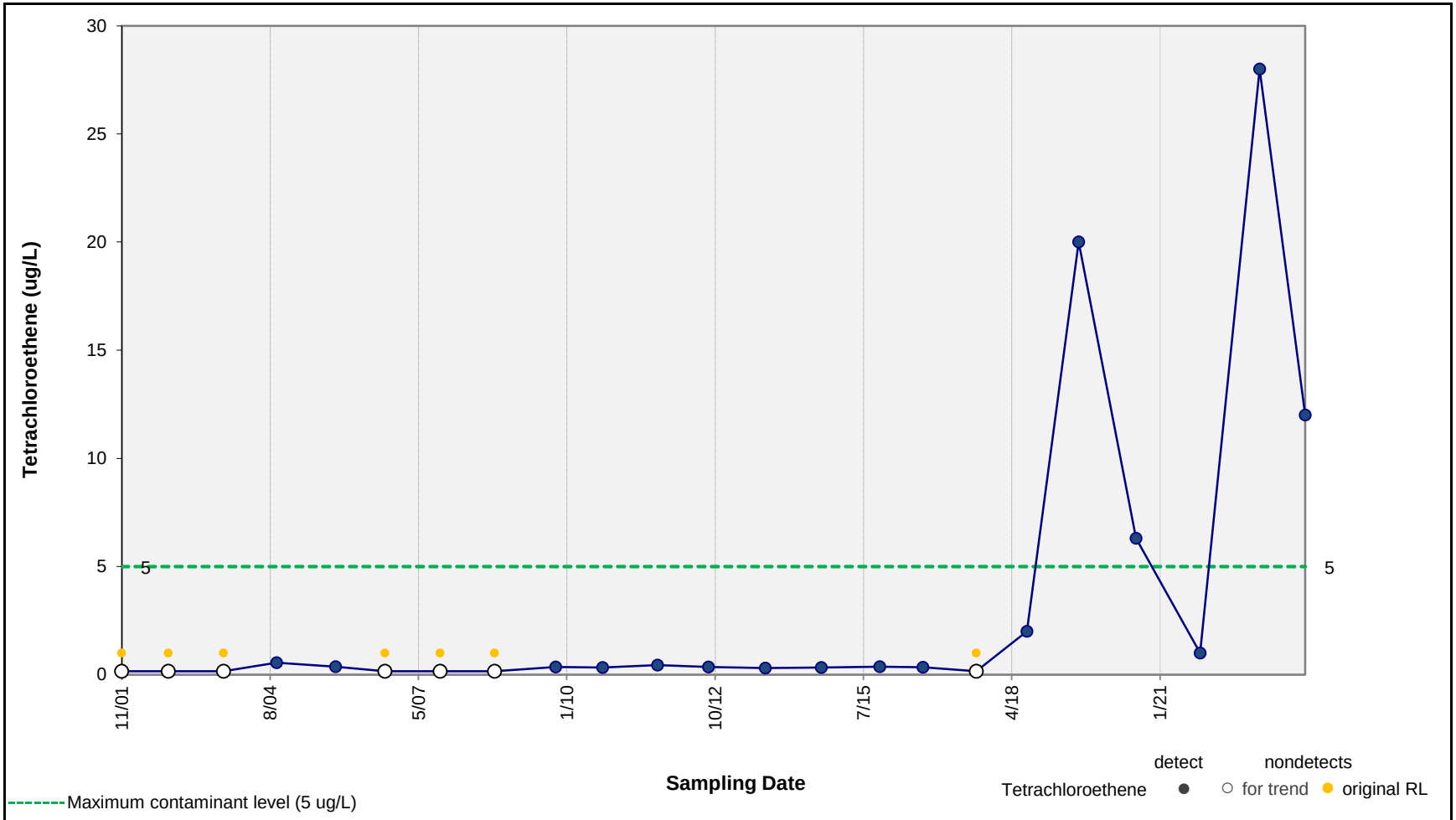
95% Confidence Interval = 1.5E-02 to 2.7E-02 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – Tetrachloroethene in Well HR-17**

RACER Trust, Moraine, Ohio

**FIGURE A-14**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 1.2E-04 ug/L Per Day

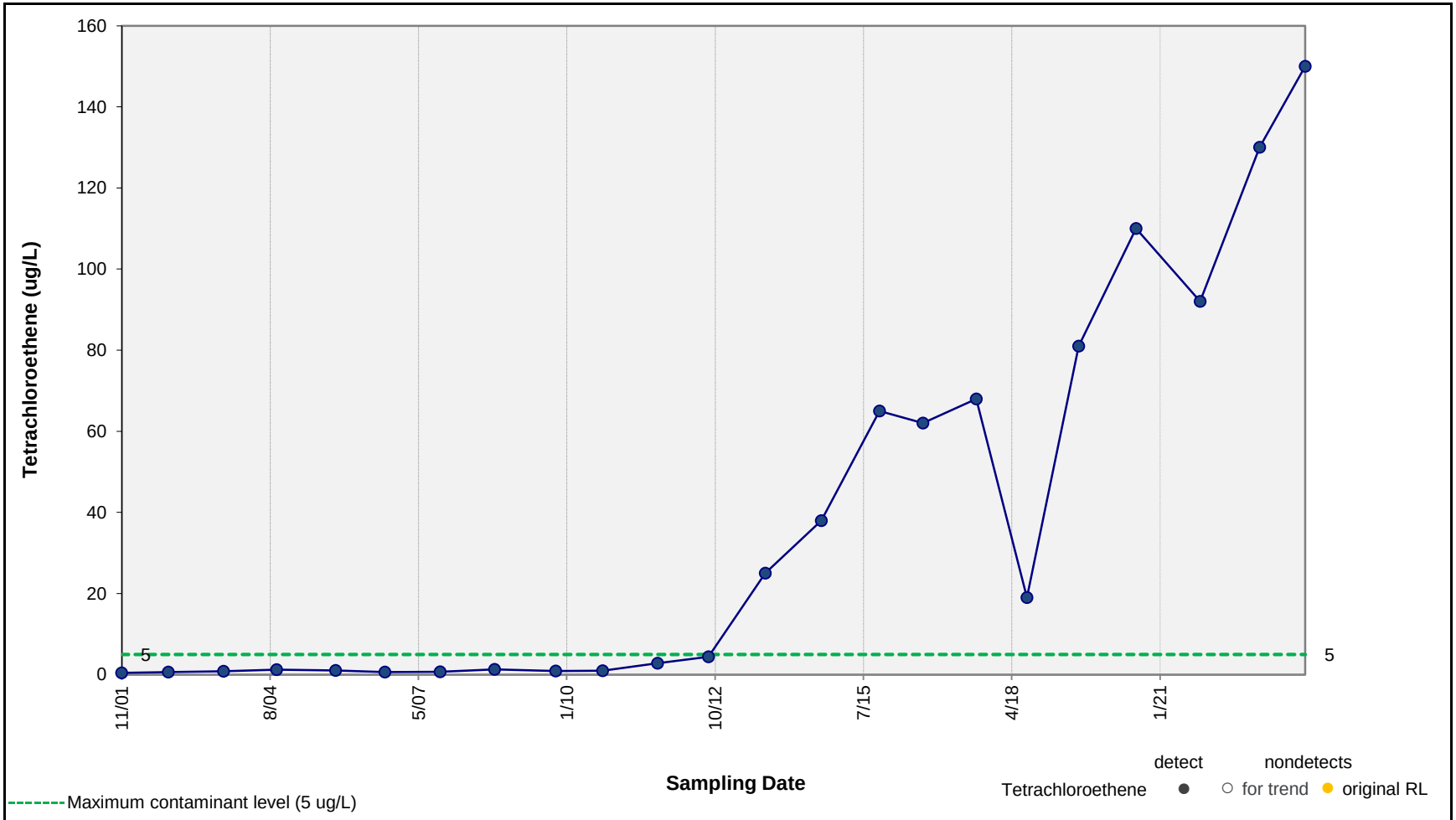
95% Confidence Interval = 4.0E-05 to 4.7E-04 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – Tetrachloroethene in Well W-2-S**

RACER Trust, Moraine, Ohio

**FIGURE A-15**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 1.6E-02 ug/L Per Day

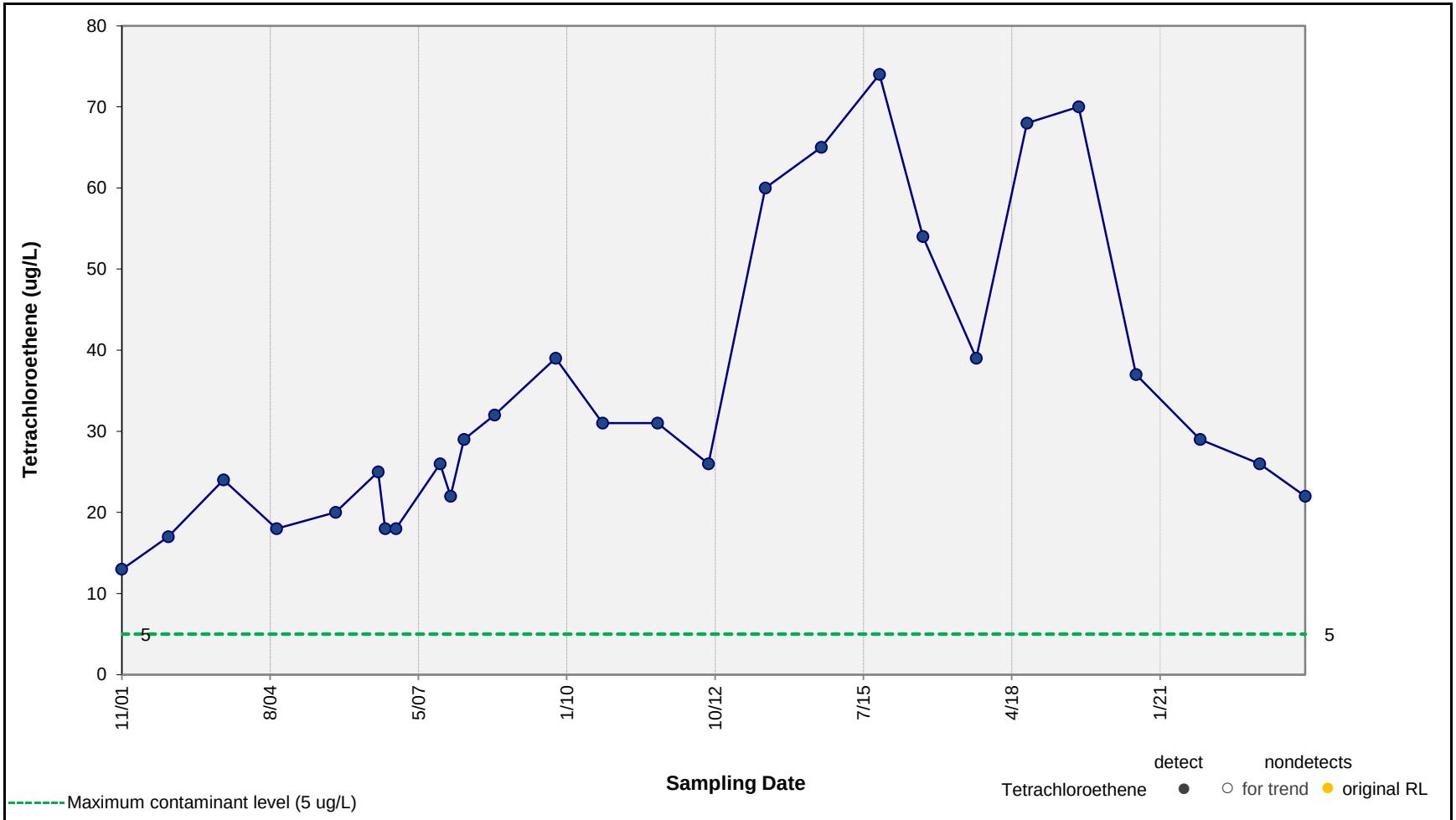
95% Confidence Interval = 7.0E-03 to 2.1E-02 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – Tetrachloroethene in Well W-3-S**

RACER Trust, Moraine, Ohio

**FIGURE A-16**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = <0.001 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **INCREASING TREND**

Median Slope Estimate = 4.4E-03 ug/L Per Day

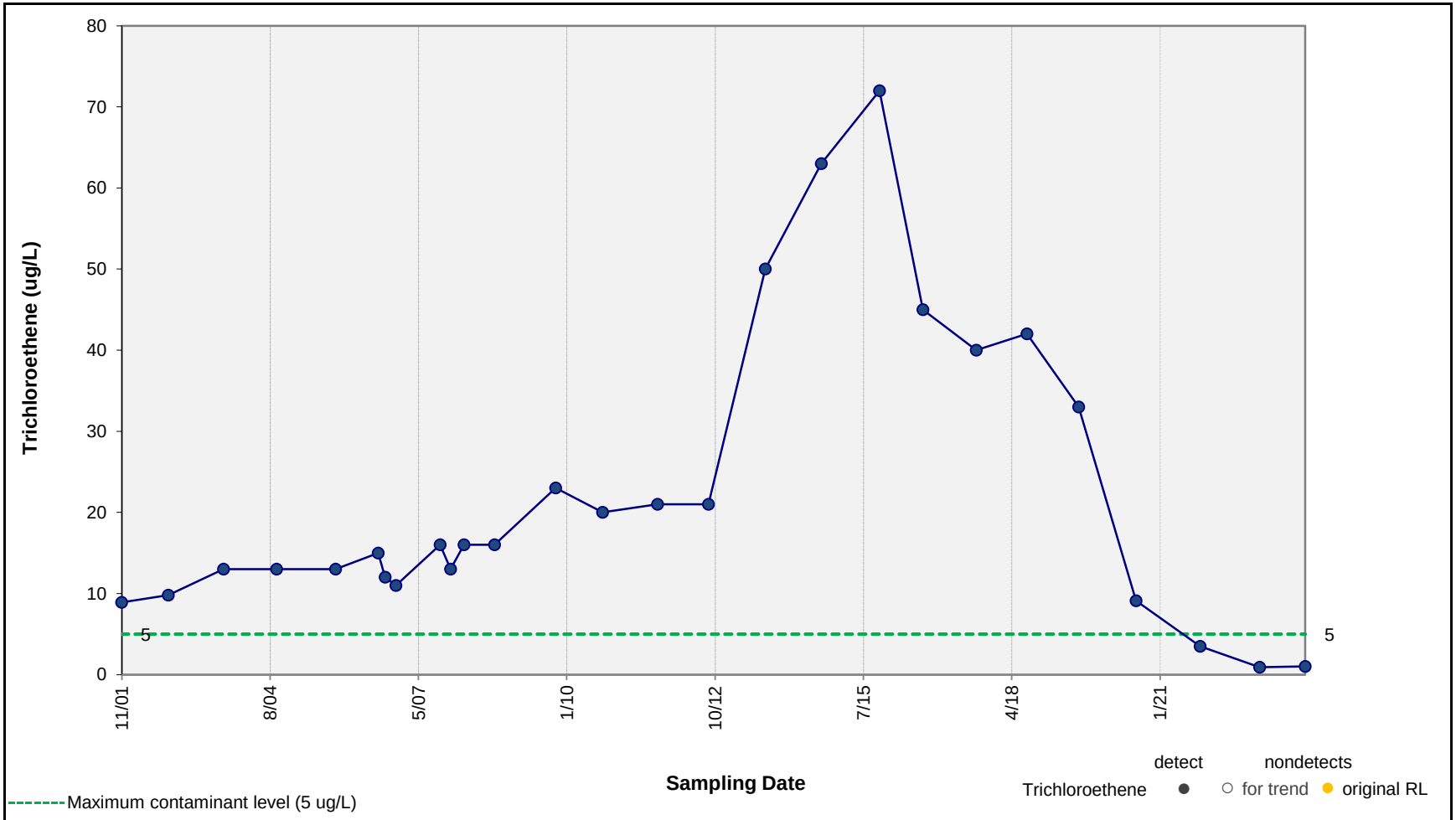
95% Confidence Interval = 2.0E-03 to 8.5E-03 ug/L Per Day

ARCADIS

**Concentration vs. Time Plot – Tetrachloroethene in Well W-4-S**

RACER Trust, Moraine, Ohio

**FIGURE A-17**




**Results of Mann-Kendall Test for Trend:** **INCREASING TREND**

p value = 0.036 Note: p value < 0.05 indicates a statistically significant trend (95% confidence level).

**Results of Sen's Estimator of Slope:** **No trend**

Median Slope Estimate = 3.1E-03 ug/L Per Day

95% Confidence Interval = 0.0E+00 to 4.8E-03 ug/L Per Day

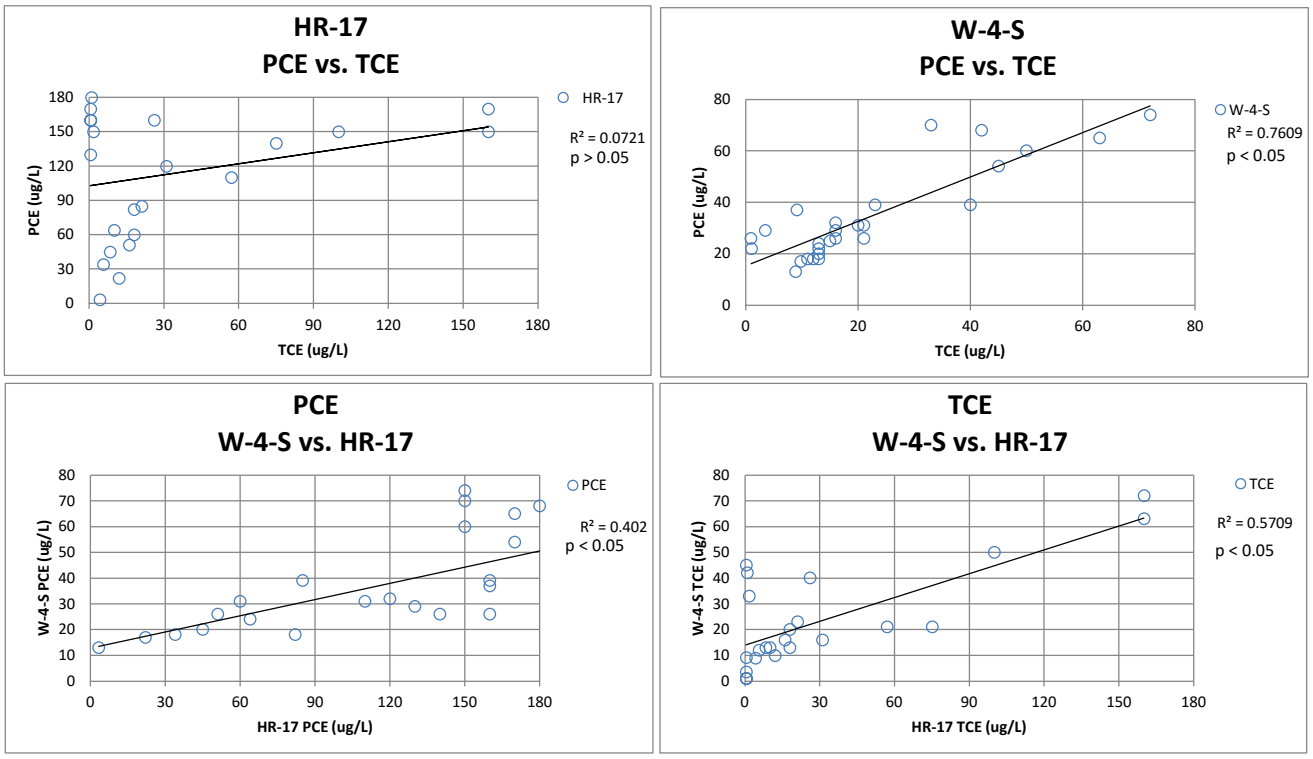
ARCADIS

**Concentration vs. Time Plot – Trichloroethene in Well W-4-S**

RACER Trust, Moraine, Ohio

**FIGURE A-18**

# Figure A-19
# PCE and TCE Concentrations in SSL Upgradient vs Downgradient Wells




**Notes:**

All results are in micrograms per liter.

Coefficient of determination was calculated in Excel 2016.

Pearson product moment correlation significance was tested using Excel 2016.

PCE : Tetrachloroethene

TCE : Trichloroethene

p : p-value for significance of the correlation

$R^2$ : coeffiecient of determination

# Attachment A-1

## Ohio EPA eBusiness Excel Worksheet

| FACILITY | FCID | ADDR1 | ADDR2 | CITY | STATE | ZIP | PHONE | CONTACT | LATITUDE | LONGITUDE | GEOG_METHOD | NUM_WELLS | COUNTY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Former Delph | OHD000817577 | 3600 Dryden Road | | MORAINE | OH | 45439 | 937.751.8635 | Pam Barnett | 39.6923750 | -84.2261690 | A | 8 | Montgomery |

| FACILITY | FCID | WELL_ID | DATUM | DEPTH | TOP_CAS_ELV | TOP_SCR_ELV | BOT_SCR_ELV | GRADIENT | CAS_MATERL | PIPE_DIA | COMMENT | SURFACE_ELV | LATITUDE | LONGITUDE | X_VAR | Y_VAR | GEOG_METHOD | ELEV_METHOD | WELL_USE | WELL_LOG_T | DATE_INSTL | DPTH_INSTL | DTW_INSTL | GWL_INSTL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | MSL | 66.80 | 742.60 | 685.61 | 675.61 | U | PVC | 2 | | 740.61 | 39.7021650 | -84.2220680 | | | S | C | 8A | M | 07/15/83 | 66.80 | 41.00 | 699.61 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | MSL | 59.70 | 731.68 | 694.68 | 669.68 | D | PVC | 4 | | 729.68 | 39.7001660 | -84.2243360 | | | S | C | 8A | M | 09/22/81 | 59.70 | 32.00 | 697.68 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | MSL | 57.60 | 733.66 | 699.98 | 674.98 | D | PVC | 4 | | 731.98 | 39.6997120 | -84.2234160 | | | S | C | 8A | M | 09/09/81 | 57.60 | 25.50 | 706.48 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | MSL | 66.60 | 731.63 | 689.88 | 664.88 | D | PVC | 4 | | 729.88 | 39.6996010 | -84.2227460 | | | S | C | 8A | M | 09/24/81 | 66.60 | 32.00 | 697.88 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | NAVD | 59.55 | 725.42 | 697.70 | 677.70 | U | PVC | 4 | | 724.70 | 39.6926330 | -84.2262332 | | | S | C | 8A | M | 11/13/89 | 59.55 | 20.87 | 704.53 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | NAVD | 67.00 | 725.67 | 694.38 | 659.38 | D | PVC | 4 | | 724.38 | 39.6911509 | -84.2288564 | | | S | C | 8A | M | 09/21/81 | 67.00 | 35.50 | 689.51 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | NAVD | 76.40 | 728.16 | 690.20 | 650.20 | D | PVC | 4 | | 726.20 | 39.6907577 | -84.2283135 | | | S | C | 8A | M | 09/23/81 | 76.40 | 41.00 | 686.54 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | NAVD | 72.50 | 726.76 | 695.51 | 655.61 | D | PVC | 4 | | 725.61 | 39.6905106 | -84.2269421 | | | S | C | 8A | M | 09/28/81 | 72.50 | 37.50 | 689.16 |
| Former Delphi Harrison Thermal Systems | OHD000817577 | DUP-01/091223/ | | | | | | | | | Duplicate collected on 09/12/23 with Parent W-2-S. | | | | | | | | | | | | | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01/091123/ | | | | | | | | | Equipment Blank collected 09/11/23. | | | | | | | | | | | | | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02/091223/ | | | | | | | | | Equipment Blank collected 09/12/23. | | | | | | | | | | | | | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01/091123/ | | | | | | | | | Trip Blank dated 09/11/23 submitted with samples collected on 09/11/23 and 09/12/23. | | | | | | | | | | | | | |

| FACILITY | FCID | SAMP_DATE | SAMP_SCHEM | COMMENT |
|---|---|---|---|---|
| Former Delphi Harrison Thermal Systems | OHD000817577 | 09/11/23 | A | Annual Sampling Event - 2 days on September 11 and 12, 2023. |

| FACILITY | FCID | NAME | UNITS | DET_LMT | ACL | MCL | METH_CODE |
|---|---|---|---|---|---|---|---|
| Former Delphi Harrison Thermal Systems | OHD000817577 | 111Tri | ug/l | 0.48 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | 11-DCEE | ug/l | 0.49 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | 11DCA | ug/l | 0.47 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | Benzene | ug/l | 0.42 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EthBenz | ug/l | 0.42 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TetCEthy | ug/l | 0.44 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | Toluen | ug/l | 0.44 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TCE | ug/l | 0.44 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | VC | ug/l | 0.45 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | Xylene | ug/l | 0.42 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | CisDCEE | ug/l | 0.46 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TranDCEE | ug/l | 0.51 | | | 8260D |
| Former Delphi Harrison Thermal Systems | OHD000817577 | pH F | SU | 0.01 | | | Field |
| Former Delphi Harrison Thermal Systems | OHD000817577 | GWL | feet | 0.01 | | | Field |
| Former Delphi Harrison Thermal Systems | OHD000817577 | Temp F | C | 0.01 | | | Field |
| Former Delphi Harrison Thermal Systems | OHD000817577 | Cond F | mS/cm | 0.01 | | | Field |
| Former Delphi Harrison Thermal Systems | OHD000817577 | Turb F | NTU | 0.01 | | | Field |
| Former Delphi Harrison Thermal Systems | OHD000817577 | Dis O2 F | mg/L | 0.01 | | | Field |
| Former Delphi Harrison Thermal Systems | OHD000817577 | ORP F | mV | 1 | | | Field |

| FACILITY | FCID | WELL_ID | PARAMETER | SAMP_DATE | CHR_DATA | REAL_DATA | UNITS | DUP_CODE | REP_CODE | METH_CODE | DATA_QUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | 111Tri | 09/11/23 | 2.0 | 2.0 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | 11DCA | 09/11/23 | 1.5 | 1.5 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | 11DCEE | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | Benzene | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | CisDCEE | 09/11/23 | 0.73 | 0.73 | ug/L | | | SW8260D | J |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | EthBenz | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | TCE | 09/11/23 | 0.44 | 0.44 | ug/L | | | SW8260D | J |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | TetCEthy | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | Toluen | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | TranDCEE | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | VC | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | Xylene | 09/11/23 | ND<2.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | pH F | 09/11/23 | 6.12 | 6.12 | SU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | GWL | 09/11/23 | 708.99 | 708.99 | feet | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | Temp F | 09/11/23 | 15.25 | 15.25 | C | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | Cond F | 09/11/23 | 1.10 | 1.10 | mS/cm | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | Turb F | 09/11/23 | 0.97 | 0.97 | NTU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | Dis O2 F | 09/11/23 | 0.57 | 0.57 | mg/L | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-04 | ORP F | 09/11/23 | 85 | 85 | mV | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | 111Tri | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | 11DCA | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | 11DCEE | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | Benzene | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | CisDCEE | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | EthBenz | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | TCE | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | TetCEthy | 09/12/23 | 200 | 200 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | Toluen | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | TranDCEE | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | VC | 09/12/23 | ND<5.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | Xylene | 09/12/23 | ND<10 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | pH F | 09/12/23 | 6.53 | 6.53 | SU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | GWL | 09/12/23 | 706.33 | 706.33 | feet | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | Temp F | 09/12/23 | 16.83 | 16.83 | C | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | Cond F | 09/12/23 | 1.19 | 1.19 | mS/cm | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | Turb F | 09/12/23 | 0.84 | 0.84 | NTU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | Dis O2 F | 09/12/23 | 1.68 | 1.68 | mg/L | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | HR-17 | ORP F | 09/12/23 | 171 | 171 | mV | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | 111Tri | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | 11DCA | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | 11DCEE | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | Benzene | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | CisDCEE | 09/11/23 | 1.7 | 1.7 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | EthBenz | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | TCE | 09/11/23 | 0.55 | 0.55 | ug/L | | | SW8260D | J |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | TetCEthy | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | Toluen | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | TranDCEE | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | VC | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | Xylene | 09/11/23 | ND<2.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | pH F | 09/11/23 | 6.29 | 6.29 | SU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | GWL | 09/11/23 | 708.48 | 708.48 | feet | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | Temp F | 09/11/23 | 16.25 | 16.25 | C | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | Cond F | 09/11/23 | 1.17 | 1.17 | mS/cm | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | Turb F | 09/11/23 | 58.6 | 58.6 | NTU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | Dis O2 F | 09/11/23 | 0.58 | 0.58 | mg/L | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-N | ORP F | 09/11/23 | -89 | -89 | mV | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | 111Tri | 09/12/23 | 1.0 | 1.0 | ug/L | DUP | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | 11DCA | 09/12/23 | ND<1.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | 11DCEE | 09/12/23 | ND<1.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Benzene | 09/12/23 | ND<1.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | CisDCEE | 09/12/23 | 1.3 | 1.3 | ug/L | DUP | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | EthBenz | 09/12/23 | ND<1.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | TCE | 09/12/23 | 6.0 | 6.0 | ug/L | DUP | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | TetCEthy | 09/12/23 | 11 | 11 | ug/L | DUP | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Toluen | 09/12/23 | ND<1.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | TranDCEE | 09/12/23 | ND<1.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | VC | 09/12/23 | ND<1.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Xylene | 09/12/23 | ND<2.0 | ND | ug/L | DUP | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | 111Tri | 09/12/23 | 0.70 | 0.70 | ug/L | | | SW8260D | J |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | 11DCA | 09/12/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | 11DCEE | 09/12/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Benzene | 09/12/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | CisDCEE | 09/12/23 | 1.1 | 1.1 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | EthBenz | 09/12/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | TCE | 09/12/23 | 6.3 | 6.3 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | TetCEthy | 09/12/23 | 12 | 12 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Toluen | 09/12/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | TranDCEE | 09/12/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | VC | 09/12/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Xylene | 09/12/23 | ND<2.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | pH F | 09/12/23 | 6.13 | 6.13 | SU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | GWL | 09/12/23 | 705.65 | 705.65 | feet | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Temp F | 09/12/23 | 16.2 | 16.2 | C | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Cond F | 09/12/23 | 1.07 | 1.07 | mS/cm | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Turb F | 09/12/23 | 2.33 | 2.33 | NTU | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | Dis O2 F | 09/12/23 | 0.7 | 0.7 | mg/L | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-2-S | ORP F | 09/12/23 | 183 | 183 | mV | | | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | 111Tri | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | 11DCA | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | 11DCEE | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | Benzene | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | CisDCEE | 09/11/23 | 13 | 13 | ug/L | | | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | EthBenz | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | TCE | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | TetCEthy | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | Toluen | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | TranDCEE | 09/11/23 | ND<1.0 | ND | ug/L | | | SW8260D | U |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | VC | 09/11/23 | 0.71 | 0.71 | ug/L | SW8260D | J |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | Xylene | 09/11/23 | ND<2.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | pH F | 09/11/23 | 5.52 | 5.52 | SU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | GWL | 09/11/23 | 708.55 | 708.55 | feet | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | Temp F | 09/11/23 | 16.77 | 16.77 | C | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | Cond F | 09/11/23 | 1.39 | 1.39 | mS/cm | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | Turb F | 09/11/23 | 84.6 | 84.6 | NTU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | Dis O2 F | 09/11/23 | 0.39 | 0.39 | mg/L | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-N | ORP F | 09/11/23 | -104 | -104 | mV | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | 111Tri | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | 11DCA | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | 11DCEE | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | Benzene | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | CisDCEE | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | EthBenz | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | TCE | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | TetCEthy | 09/12/23 | 150 | 150 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | Toluen | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | TranDCEE | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | VC | 09/12/23 | ND<5.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | Xylene | 09/12/23 | ND<10 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | pH F | 09/12/23 | 6.50 | 6.50 | SU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | GWL | 09/12/23 | 705.71 | 705.71 | feet | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | Temp F | 09/12/23 | 16.20 | 16.20 | C | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | Cond F | 09/12/23 | 1.04 | 1.04 | mS/cm | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | Turb F | 09/12/23 | 1.51 | 1.51 | NTU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | Dis O2 F | 09/12/23 | 0.38 | 0.38 | mg/L | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-3-S | ORP F | 09/12/23 | 109 | 109 | mV | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | 111Tri | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | 11DCA | 09/11/23 | 7.5 | 7.5 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | 11DCEE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | Benzene | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | CisDCEE | 09/11/23 | 6.9 | 6.9 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | EthBenz | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | TCE | 09/11/23 | 8.7 | 8.7 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | TetCEthy | 09/11/23 | 0.55 | 0.55 | ug/L | SW8260D | J |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | Toluen | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | TranDCEE | 09/11/23 | 1.1 | 1.1 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | VC | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | Xylene | 09/11/23 | ND<2.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | pH F | 09/11/23 | 6.00 | 6.00 | SU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | GWL | 09/11/23 | 708.59 | 708.59 | feet | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | Temp F | 09/11/23 | 14.68 | 14.68 | C | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | Cond F | 09/11/23 | 1.35 | 1.35 | mS/cm | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | Turb F | 09/11/23 | 39.5 | 39.5 | NTU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | Dis O2 F | 09/11/23 | 0.39 | 0.39 | mg/L | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-N | ORP F | 09/11/23 | 12 | 12 | mV | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | 111Tri | 09/12/23 | 1.0 | 1.0 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | 11DCA | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | 11DCEE | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | Benzene | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | CisDCEE | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | EthBenz | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | TCE | 09/12/23 | 1.0 | 1.0 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | TetCEthy | 09/12/23 | 22 | 22 | ug/L | SW8260D | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | Toluen | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | TranDCEE | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | VC | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | Xylene | 09/12/23 | ND<2.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | pH F | 09/12/23 | 6.39 | 6.39 | SU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | GWL | 09/12/23 | 705.95 | 705.95 | feet | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | Temp F | 09/12/23 | 16.09 | 16.09 | C | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | Cond F | 09/12/23 | 1.17 | 1.17 | mS/cm | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | Turb F | 09/12/23 | 6.71 | 6.71 | NTU | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | Dis O2 F | 09/12/23 | 0.86 | 0.86 | mg/L | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | W-4-S | ORP F | 09/12/23 | 179 | 179 | mV | Field | |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | 111Tri | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | 11DCA | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | 11DCEE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | Benzene | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | CisDCEE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | EthBenz | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | TCE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | TetCEthy | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | Toluen | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | TranDCEE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | VC | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | Xylene | 09/11/23 | ND<2.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-01 | 111Tri | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | 11DCA | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | 11DCEE | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | Benzene | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | CisDCEE | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | EthBenz | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | TCE | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | TetCEthy | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | Toluen | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | TranDCEE | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | VC | 09/12/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | Xylene | 09/12/23 | ND<2.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | 111Tri | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | 11DCA | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | 11DCEE | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | Benzene | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | CisDCEE | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | EthBenz | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | TCE | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | TetCEthy | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | Toluen | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | TranDCEE | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | VC | 09/13/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | EB-02 | Xylene | 09/13/23 | ND<2.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | 111Tri | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | 11DCA | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | 11DCEE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | Benzene | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | CisDCEE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | EthBenz | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | TCE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | TetCEthy | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | Toluen | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | TranDCEE | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | VC | 09/11/23 | ND<1.0 | ND | ug/L | SW8260D | U |
| Former Delphi Harrison Thermal Systems | OHD000817577 | TB-01 | Xylene | 09/11/23 | ND<2.0 | ND | ug/L | SW8260D | U |

# Attachment A-2

## Groundwater Sampling Forms

# Groundwater Sampling Form

ARCADIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | HR-4 | | | **Date** | 9/11/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 71.1 degrees F and Clear. The wind is blowing undefined at 0.0 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 742.6 | **Casing Diameter (in)** | 2 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 33.61 | **Total Depth (ft-bmp)** | 68.62 | **Water Column (ft)** | 35.01 | **Gallons in Well** | 5.69 |
| **Purge Start** | 11:50 | **Pump Intake (ft-bmp)** | 60 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 12:30 | **Volumes Purged** | 0.86 | **Sample ID** | HR-4/091123/ | **Sampled by** | Luke Holben |
| **Sample Time** | 12:35 | **Gallons Purged** | 4.91 | **Replicate/ Code No.** | NA | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 11:55 | 5 | 5 | 450 | 33.62 | 0.59 | 6.47 | 1.10 | 5.16 | 1.41 | 14.98 | 122 | Clear | None |
| 12:00 | 5 | 10 | 450 | 33.63 | 1.19 | 6.29 | 1.10 | 3.71 | 0.90 | 15.00 | 114 | Clear | None |
| 12:05 | 5 | 15 | 480 | 33.63 | 1.82 | 6.29 | 1.09 | 2.78 | 0.77 | 15.18 | 105 | Clear | None |
| 12:10 | 5 | 20 | 480 | 33.63 | 2.46 | 6.29 | 1.10 | 2.40 | 0.70 | 15.08 | 97 | Clear | None |
| 12:15 | 5 | 25 | 480 | 33.63 | 3.10 | 6.25 | 1.10 | 1.59 | 0.66 | 15.09 | 93 | Clear | None |
| 12:20 | 5 | 30 | 480 | 33.65 | 3.72 | 6.19 | 1.10 | 1.43 | 0.61 | 15.21 | 89 | Clear | None |
| 12:25 | 5 | 35 | 450 | 33.65 | 4.31 | 6.16 | 1.10 | 1.05 | 0.59 | 15.21 | 87 | Clear | None |
| 12:30 | 5 | 40 | 450 | 33.65 | 4.91 | 6.12 | 1.10 | 0.97 | 0.57 | 15.25 | 85 | Clear | None |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot — 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: NSL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius

mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Groundwater Sampling Form

ARCADIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | W-2-N | | | **Date** | 9/11/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 62.1 degrees F and Clear. The wind is blowing E at 3.4 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 731.68 | **Casing Diameter (in)** | 4 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 23.20 | **Total Depth (ft-bmp)** | 59.65 | **Water Column (ft)** | 36.45 | **Gallons in Well** | 23.69 |
| **Purge Start** | 09:55 | **Pump Intake (ft-bmp)** | 47.5 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 10:35 | **Volumes Purged** | 0.18 | **Sample ID** | W-2-N/091123/ | **Sampled by** | Luke Holben |
| **Sample Time** | 10:40 | **Gallons Purged** | 4.23 | **Replicate/ Code No.** | NA | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 10:00 | 5 | 5 | 400 | 23.21 | 0.53 | 6.21 | 1.20 | 69.3 | 1.08 | 16.00 | -76 | Brown | Mild |
| 10:05 | 5 | 10 | 400 | 23.21 | 1.06 | 6.28 | 1.20 | 71.3 | 0.74 | 16.43 | -89 | Brown | Mild |
| 10:10 | 5 | 15 | 400 | 23.21 | 1.59 | 6.30 | 1.19 | 81.2 | 0.72 | 16.50 | -93 | Brown | Mild |
| 10:15 | 5 | 20 | 400 | 23.21 | 2.11 | 6.31 | 0.94 | 69.4 | 0.67 | 16.43 | -95 | Brown | Mild |
| 10:20 | 5 | 25 | 400 | 23.21 | 2.64 | 6.31 | 1.19 | 69.6 | 0.64 | 16.28 | -94 | Brown | Mild |
| 10:25 | 5 | 30 | 400 | 23.22 | 3.17 | 6.33 | 1.18 | 58.3 | 0.60 | 16.20 | -94 | Brown | Mild |
| 10:30 | 5 | 35 | 400 | 23.22 | 3.70 | 6.30 | 1.18 | 56.7 | 0.60 | 16.25 | -90 | Brown | Mild |
| 10:35 | 5 | 40 | 400 | 23.22 | 4.23 | 6.29 | 1.17 | 58.6 | 0.58 | 16.25 | -89 | Brown | Mild |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot — 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: NSL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius
mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Groundwater Sampling Form

ARCADIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | W-3-N | | | **Date** | 9/11/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 79.0 degrees F and Clear. The wind is blowing at 3.4 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 733.66 | **Casing Diameter (in)** | 4 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 25.11 | **Total Depth (ft-bmp)** | 57.53 | **Water Column (ft)** | 32.42 | **Gallons in Well** | 21.07 |
| **Purge Start** | 15:40 | **Pump Intake (ft-bmp)** | 44.5 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 16:40 | **Volumes Purged** | 0.31 | **Sample ID** | W-3-N/091123/ | **Sampled by** | Luke Holben |
| **Sample Time** | 16:45 | **Gallons Purged** | 6.62 | **Replicate/ Code No.** | NA | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 15:45 | 5 | 5 | 320 | 25.14 | 0.42 | 5.65 | 1.45 | 112 | 0.99 | 16.73 | -96 | Orange | None |
| 15:50 | 5 | 10 | 400 | 25.14 | 0.95 | 5.62 | 1.45 | 113 | 0.66 | 16.47 | -100 | Orange | None |
| 15:55 | 5 | 15 | 400 | 25.14 | 1.48 | 5.65 | 1.44 | 120 | 1.66 | 16.09 | -104 | Orange | None |
| 16:00 | 5 | 20 | 450 | 25.14 | 2.07 | 5.65 | 1.43 | 120 | 0.85 | 16.05 | -107 | Orange | None |
| 16:05 | 5 | 25 | 440 | 25.15 | 2.65 | 5.63 | 1.42 | 111 | 0.81 | 16.20 | -107 | Orange | None |
| 16:10 | 5 | 30 | 450 | 25.15 | 3.25 | 5.62 | 1.41 | 104 | 0.69 | 16.34 | -107 | Orange | None |
| 16:15 | 5 | 35 | 450 | 25.15 | 3.84 | 5.60 | 1.41 | 93.2 | 0.57 | 16.43 | -107 | Orange | None |
| 16:20 | 5 | 40 | 420 | 25.15 | 4.40 | 5.59 | 1.40 | 86.1 | 0.49 | 16.57 | -106 | Orange | None |
| 16:25 | 5 | 45 | 420 | 25.15 | 4.95 | 5.56 | 1.40 | 79.0 | 0.44 | 16.69 | -106 | Orange | None |
| 16:30 | 5 | 50 | 420 | 25.15 | 5.51 | 5.55 | 1.39 | 91.4 | 0.42 | 16.70 | -105 | Orange | None |
| 16:40 | 10 | 55 | 420 | 25.15 | 6.62 | 5.52 | 1.39 | 84.6 | 0.39 | 16.77 | -104 | Orange | None |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot — 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: NSL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius
mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Groundwater Sampling Form

ARCADIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | W-4-N | | | **Date** | 9/11/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 75.9 degrees F and Clear. The wind is blowing undefined at 0.0 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 731.63 | **Casing Diameter (in)** | 4 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 23.04 | **Total Depth (ft-bmp)** | 66.55 | **Water Column (ft)** | 43.51 | **Gallons in Well** | 28.28 |
| **Purge Start** | 13:35 | **Pump Intake (ft-bmp)** | 52.5 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 14:30 | **Volumes Purged** | 0.25 | **Sample ID** | W-4-N/091123/ | **Sampled by** | Luke Holben |
| **Sample Time** | 14:35 | **Gallons Purged** | 6.95 | **Replicate/ Code No.** | NA | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 13:40 | 5 | 5 | 480 | 23.04 | 0.63 | 6.48 | 1.39 | 36.6 | 1.08 | 15.01 | -23 | Orange | None |
| 13:45 | 5 | 10 | 470 | 23.04 | 1.25 | 6.30 | 1.38 | 51.8 | 0.79 | 14.82 | -15 | Orange | None |
| 13:50 | 5 | 15 | 470 | 23.04 | 1.88 | 6.27 | 1.38 | 54.9 | 0.67 | 14.75 | -14 | Orange | None |
| 13:55 | 5 | 20 | 480 | 23.04 | 2.51 | 6.23 | 1.37 | 56.6 | 0.57 | 14.71 | -11 | Orange | None |
| 14:00 | 5 | 25 | 480 | 23.04 | 3.14 | 6.18 | 1.37 | 57.0 | 0.52 | 14.69 | -7 | Orange | None |
| 14:05 | 5 | 30 | 480 | 23.04 | 3.78 | 6.15 | 1.37 | 53.8 | 0.49 | 14.67 | -3 | Orange | None |
| 14:10 | 5 | 35 | 480 | 23.04 | 4.41 | 6.10 | 1.36 | 50.2 | 0.46 | 14.65 | 1 | Orange | None |
| 14:15 | 5 | 40 | 480 | 23.04 | 5.05 | 6.07 | 1.36 | 45.8 | 0.43 | 14.65 | 4 | Orange | None |
| 14:20 | 5 | 45 | 480 | 23.04 | 5.68 | 6.04 | 1.35 | 42.2 | 0.41 | 14.73 | 7 | Orange | None |
| 14:25 | 5 | 50 | 480 | 23.04 | 6.31 | 6.03 | 1.35 | 40.1 | 0.41 | 14.75 | 9 | Orange | None |
| 14:30 | 5 | 55 | 480 | 23.04 | 6.95 | 6.00 | 1.35 | 39.5 | 0.39 | 14.68 | 12 | Orange | None |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot — 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47; 1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: NSL

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius

mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Groundwater Sampling Form

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | HR-17 | | | **Date** | 9/12/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 70.0 degrees F and Mostly Cloudy. The wind is blowing at 3.4 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 725.42 | **Casing Diameter (in)** | 4 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 19.09 | **Total Depth (ft-bmp)** | 47.98 | **Water Column (ft)** | 28.89 | **Gallons in Well** | 18.78 |
| **Purge Start** | 15:05 | **Pump Intake (ft-bmp)** | 37 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 15:25 | **Volumes Purged** | 0.13 | **Sample ID** | HR-17/091223/ | **Sampled by** | Luke Holben |
| **Sample Time** | 15:30 | **Gallons Purged** | 2.48 | **Replicate/ Code No.** | NA | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 15:10 | 5 | 5 | 480 | 19.09 | 0.63 | 6.65 | 1.19 | 0.95 | 1.93 | 16.86 | 171 | Clear | None |
| 15:15 | 5 | 10 | 480 | 19.09 | 1.27 | 6.58 | 1.19 | 0.27 | 1.78 | 16.83 | 172 | Clear | None |
| 15:20 | 5 | 15 | 480 | 19.09 | 1.90 | 6.54 | 1.19 | 0.67 | 1.73 | 16.80 | 172 | Clear | None |
| 15:25 | 5 | 20 | 440 | 19.09 | 2.48 | 6.53 | 1.19 | 0.84 | 1.68 | 16.83 | 171 | Clear | None |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot

1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: SSL

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius

mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Groundwater Sampling Form

ARCADIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | W-2-S | | | **Date** | 9/12/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 64.9 degrees F and Light Rain. The wind is blowing N at 3.4 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 725.67 | **Casing Diameter (in)** | 4 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 20.02 | **Total Depth (ft-bmp)** | 67.02 | **Water Column (ft)** | 47.00 | **Gallons in Well** | 30.55 |
| **Purge Start** | 10:20 | **Pump Intake (ft-bmp)** | 47.5 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 11:05 | **Volumes Purged** | 0.18 | **Sample ID** | W-2-S/091223/ | **Sampled by** | Luke Holben |
| **Sample Time** | 11:10 | **Gallons Purged** | 5.49 | **Replicate/ Code No.** | DUP-01/091223/, W-2-S/091223/ MS/MSD | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 10:25 | 5 | 5 | 480 | 20.02 | 0.63 | 5.86 | 1.06 | 8.12 | 1.32 | 16.16 | 239 | Clear | None |
| 10:30 | 5 | 10 | 480 | 20.02 | 1.27 | 5.97 | 1.06 | 6.16 | 1.15 | 16.15 | 224 | Clear | None |
| 10:35 | 5 | 15 | 480 | 20.02 | 1.90 | 6.03 | 1.07 | 5.19 | 1.23 | 16.02 | 213 | Clear | None |
| 10:40 | 5 | 20 | 460 | 20.03 | 2.51 | 6.07 | 1.07 | 3.93 | 1.13 | 15.96 | 208 | Clear | None |
| 10:45 | 5 | 25 | 460 | 20.03 | 3.12 | 6.09 | 1.07 | 3.21 | 1.05 | 15.93 | 203 | Clear | None |
| 10:50 | 5 | 30 | 460 | 20.03 | 3.72 | 6.10 | 1.07 | 2.92 | 0.900 | 15.94 | 198 | Clear | None |
| 10:55 | 5 | 35 | 460 | 20.03 | 4.33 | 6.11 | 1.07 | 2.59 | 0.830 | 15.95 | 194 | Clear | None |
| 11:00 | 5 | 40 | 460 | 20.03 | 4.94 | 6.12 | 1.07 | 2.58 | 0.790 | 15.94 | 189 | Clear | None |
| 11:05 | 5 | 45 | 420 | 20.03 | 5.49 | 6.13 | 1.07 | 2.33 | 0.700 | 16.20 | 183 | Clear | None |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot — 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: SSL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius

mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Groundwater Sampling Form

ARCADIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | W-3-S | | | **Date** | 9/12/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 68.0 degrees F and Light Rain. The wind is blowing SW at 5.8 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 728.16 | **Casing Diameter (in)** | 4 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 22.45 | **Total Depth (ft-bmp)** | 73.42 | **Water Column (ft)** | 50.97 | **Gallons in Well** | 33.13 |
| **Purge Start** | 13:20 | **Pump Intake (ft-bmp)** | 56 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 13:55 | **Volumes Purged** | 0.11 | **Sample ID** | W-3-S/091223/ | **Sampled by** | Luke Holben |
| **Sample Time** | 14:00 | **Gallons Purged** | 3.59 | **Replicate/ Code No.** | NA | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 13:25 | 5 | 5 | 400 | 22.45 | 0.53 | 6.61 | 1.03 | 2.59 | 1.65 | 16.31 | 174 | Clear | None |
| 13:30 | 5 | 10 | 400 | 22.45 | 1.06 | 6.56 | 1.04 | 2.01 | 0.64 | 16.29 | 159 | Clear | None |
| 13:35 | 5 | 15 | 400 | 22.45 | 1.59 | 6.55 | 1.04 | 1.72 | 0.58 | 16.26 | 146 | Clear | None |
| 13:40 | 5 | 20 | 380 | 22.45 | 2.09 | 6.53 | 1.04 | 1.79 | 0.50 | 16.18 | 131 | Clear | None |
| 13:45 | 5 | 25 | 380 | 22.45 | 2.59 | 6.52 | 1.04 | 1.92 | 0.42 | 16.15 | 119 | Clear | None |
| 13:50 | 5 | 30 | 380 | 22.45 | 3.09 | 6.51 | 1.04 | 1.49 | 0.40 | 16.17 | 110 | Clear | None |
| 13:55 | 5 | 35 | 380 | 22.45 | 3.59 | 6.50 | 1.04 | 1.51 | 0.38 | 16.20 | 109 | Clear | None |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot

1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: SSL

Condition of Well: Good condition

Well Completion: Stick-up

Well Locked at Arrival: yes

Well Locked at Departure: yes

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius

mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Groundwater Sampling Form

ARCADIS

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Project Number** | 30173252 | **Well ID** | W-4-S | | | **Date** | 9/12/2023 |
| **Project Name/Location** | RACER Moraine 2023 Site Activies | | **Weather(°F)** | 68.0 degrees F and Light Rain. The wind is blowing S/SW at 3.4 mph. | | | |
| **Measuring Pt. Description** | Top of Inner Casing | **MP Elevation** | 726.76 | **Casing Diameter (in)** | 4 | **Well Casing Material** | PVC |
| **Static Water Level (ft-bmp)** | 20.81 | **Total Depth (ft-bmp)** | 70.77 | **Water Column (ft)** | 49.96 | **Gallons in Well** | 32.47 |
| **Purge Start** | 12:00 | **Pump Intake (ft-bmp)** | 50 | **Purge Method** | Low-Flow | **Purge Equipment** | Grab Sample |
| **Purge End** | 12:35 | **Volumes Purged** | 0.11 | **Sample ID** | W-4-S/091223/ | **Sampled by** | Luke Holben |
| **Sample Time** | 12:40 | **Gallons Purged** | 3.59 | **Replicate/ Code No.** | NA | **Sample Type** | Grab |

| Time | Minutes Elapsed | Total Elapsed Minutes | Rate mL/min | Depth to Water (ft) | Gallon Purged | pH (standard units) | Conductivity (mS/cm) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Temperature °C | Redox (mV) | Appearance | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Color | Odor |
| 12:05 | 5 | 5 | 380 | 20.81 | 0.50 | 6.45 | 1.17 | 15.5 | 1.05 | 16.10 | 170 | Clear | None |
| 12:10 | 5 | 10 | 400 | 20.81 | 1.03 | 6.42 | 1.17 | 13.2 | 0.89 | 16.00 | 171 | Clear | None |
| 12:15 | 5 | 15 | 400 | 20.81 | 1.56 | 6.41 | 1.17 | 10.2 | 0.83 | 16.07 | 171 | Clear | None |
| 12:20 | 5 | 20 | 400 | 20.81 | 2.09 | 6.40 | 1.17 | 9.41 | 0.83 | 16.04 | 172 | Clear | None |
| 12:25 | 5 | 25 | 380 | 20.81 | 2.59 | 6.40 | 1.17 | 6.69 | 0.83 | 16.06 | 175 | Clear | None |
| 12:30 | 5 | 30 | 380 | 20.82 | 3.09 | 6.40 | 1.17 | 6.69 | 0.85 | 16.09 | 176 | Clear | None |
| 12:35 | 5 | 35 | 380 | 20.82 | 3.59 | 6.39 | 1.17 | 6.71 | 0.86 | 16.09 | 179 | Clear | None |

**Comments:**

**Well Casing Volume Conversion**

Well diameter (inches) = gallons per foot — 1 = 0.04; 1.5 = 0.09; 2.5 = 0.26; 3.5 = 0.50; 6 = 1.47
1.25 = 0.06; 2 = 0.16; 3 = 0.37; 4 = 0.65

**Well Information**

Well Location: SSL
Condition of Well: Good condition
Well Completion: Stick-up
Well Locked at Arrival: yes
Well Locked at Departure: yes
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
°C = degrees Celcius
mV = millivolts
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
°F = degrees Fahrenheit

# Attachment A-3

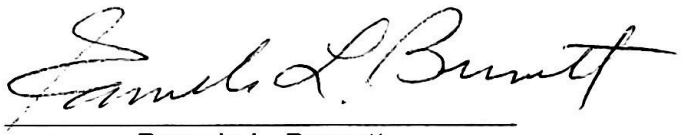
## Laboratory Data Review Report

# OHIO EPA
# SUPPLEMENTARY ANNUAL REPORT
# FOR 2023 GROUNDWATER
# MONITORING DATA

February 23, 2024

*Prepared by Arcadis*

I certify under penalty of law that the groundwater sample data provided in this report, to the best of my knowledge and belief, is representative, valid, and usable for its intended purpose. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Pamela L. Barnett
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RACER Trust

RACER TRUST

# DATA REVIEW

## Moraine, Ohio

Volatile Organic Compounds, Dissolved Gases, and Total Organic Carbon

SDG # 240-191865-1, 240-191867-1, 240-191870-1, and 20289620
Analyses Performed By:
Eurofins Cleveland

Barberton, Ohio and

Pace Analytical Services

Baton Rouge, Louisiana

Report #52193R1
Review Level: Tier III
Project: 30173252.0004B

# SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) #240-191865-1, 240-191867-1, 240-191870-1, 20289620 for samples collected in association with the RACER Trust site in Moraine, Ohio. The review was conducted as a Tier III evaluation and included review of data package completeness. Only analytical data as reported by the laboratories were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the validation annotated sample result sheets and chain of custody records (COCs). Analyses were performed on the following samples:

| SDG | Sample ID | Lab ID | Matrix | Sample Collection Date | Parent Sample | Analysis | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | VOC | Dis. Gases | TOC |
| 240-191865-1 | HR-4/091123/ | 240-191865-1 | Water | 09/11/2023 | | X | | |
| 240-191865-1 | W-2-N/091123/ | 240-191865-2 | Water | 09/11/2023 | | X | | |
| 240-191865-1 | W-3-N/091123/ | 240-191865-3 | Water | 09/11/2023 | | X | | |
| 240-191865-1 | W-4-N/091123/ | 240-191865-4 | Water | 09/11/2023 | | X | | |
| 240-191865-1 | EB-01/091123/ | 240-191865-5 | Water | 09/11/2023 | | X | | |
| 240-191865-1 | TB-01/091123/ | 240-191865-6 | Water | 09/11/2023 | | X | | |
| 240-191867-1 | W-2-S/091223/ | 240-191867-1 | Water | 09/12/2023 | MS/MSD | X | | |
| 240-191867-1 | W-4-S/091223/ | 240-191867-2 | Water | 09/12/2023 | | X | | |
| 240-191867-1 | W-3-S/091223/ | 240-191867-3 | Water | 09/12/2023 | | X | | |
| 240-191867-1 | HR-17/091223/ | 240-191867-4 | Water | 09/12/2023 | | X | | |
| 240-191867-1 | DUP-01/091223/ | 240-191867-5 | Water | 09/12/2023 | W-2-S/091223 | X | | |
| 240-191867-1 | EB-02/091223/ | 240-191867-6 | Water | 09/12/2023 | | X | | |
| 240-191870-1 | RMW-94/091223/ | 240-191870-1 | Water | 09/12/2023 | | X | | |
| 240-191870-1 | EB-03/091323/ | 240-191870-2 | Water | 09/13/2023 | | X | | |
| 240-191870-1 | GM-64/091323/ | 240-191870-3 | Water | 09/13/2023 | | X | | |
| 240-191870-1 | GM-63/091323/ | 240-191870-4 | Water | 09/13/2023 | | X | | |
| 240-191870-1 | RMW-93/091323/ | 240-191870-5 | Water | 09/13/2023 | MS/MSD | X | | |
| 240-191870-1 | WSU-23/091323/ | 240-191870-6 | Water | 09/13/2023 | | X | | |
| 240-191870-1 | GM-51/091423/ | 240-191870-7 | Water | 09/14/2023 | | X | | |
| 240-191870-1 | RMW-102/091423/ | 240-191870-8 | Water | 09/14/2023 | | X | | |
| 240-191870-1 | RMW-101/091423/ | 240-191870-9 | Water | 09/14/2023 | | X | | |
| 240-191870-1 | RMW-99/091423/ | 240-191870-10 | Water | 09/14/2023 | | X | | |
| 240-191870-1 | GM-47/091423/ | 240-191870-11 | Water | 09/14/2023 | | X | | |

| SDG | Sample ID | Lab ID | Matrix | Sample Collection Date | Parent Sample | Analysis | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | VOC | Dis. Gases | TOC |
| 240-191870-1 | GM-50/091423/ | 240-191870-12 | Water | 09/14/2023 | | X | | |
| 240-191870-1 | EB-04/091423/ | 240-191870-13 | Water | 09/14/2023 | | X | | |
| 240-191870-1, 20289620 | GM-32/091323/ | 240-191870-14, 20289620001 | Water | 09/13/2023 | | X | X | X |
| 240-191870-1, 20289620 | GM-21/091523/ | 240-191870-15, 20289620002 | Water | 09/15/2023 | | X | X | X |
| 240-191870-1, 20289620 | GM-19S/091523/ | 240-191870-16, 20289520003 | Water | 09/15/2023 | | X | X | X |
| 240-191870-1, 20289620 | GM-2/091523/ | 240-191870-17, 20289620004 | Water | 09/15/2023 | | X | X | X |
| 240-191870-1 | DN-13/091523/ | 240-191870-18 | Water | 09/15/2023 | | X | | |
| 240-191870-1, 20289620 | DUP-02/091523/ | 240-191870-19, 20289620005 | Water | 09/15/2023 | GM-2/091523 | X | X | X |
| 240-191870-1 | EB-05/091523/ | 240-191870-20 | Water | 09/15/2023 | | X | | |

NOTE:

1. Matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on sample locations W-2-S and RMW-93.
2. TOC results were reposted under SDG 20289620 from Pace Baton Rouge.
3. This DV report was revised to correct the Sample ID nomenclature.

## ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

| Items Reviewed | Reported | | Performance Acceptable | | Not Required |
|---|---|---|---|---|---|
| | No | Yes | No | Yes | |
| 1. Sample receipt condition | | X | | X | |
| 2. Requested analyses and sample results | | X | | X | |
| 3. Master tracking list | | X | | X | |
| 4. Methods of analysis | | X | | X | |
| 5. Reporting limits | | X | | X | |
| 6. Sample collection date | | X | | X | |
| 7. Laboratory sample received date | | X | | X | |
| 8. Sample preservation verification (as applicable) | | X | | X | |
| 9. Sample preparation/extraction/analysis dates | | X | | X | |
| 10. Fully executed Chain-of-Custody (COC) form | | X | | X | |
| 11. Narrative summary of QA or sample problems provided | | X | | X | |
| 12. Data Package Completeness and Compliance | | X | | X | |

Note:
QA - Quality Assurance

## ORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Method 8260D, RSK-175 (modified as AM20GAX), and SW-846 Method 9060A. Data were reviewed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review, EPA 540-R-20-005, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, OSWER 9240.1-05A-P, October 1999), as appropriate, and the Quality Assurance Project Plan (QAPP) for Motors Liquidation Company (MLC) Moraine Facilities (August 2023).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and had already been subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The compound was analyzed for but not detected. The associated value is the compound quantitation limit.

  B The compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.

- Quantitation (Q) Qualifiers

  E The compound was quantitated above the calibration range.

  D Concentration is based on a diluted sample analysis.

- Validation Qualifiers

  J The compound was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The compound was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual limit of quantitation.

  JN The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification. The associated numerical value is an estimated concentration only.

  UB Compound is considered non-detect at the listed value due to associated blank contamination.

  N The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on

data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

## VOLATILE ORGANIC COMPOUND (VOC) ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

| Method | Matrix | Holding Time | Preservation |
|---|---|---|---|
| SW-846 8260 | Water | 14 days from collection to analysis (preserved)<br>7 days from collection to analysis (non-preserved) | Cool to <6 °C; preserved to a pH of less than 2 s.u. |

Note:
s.u. Standard units

All samples were analyzed within the specified holding time criteria.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

### 3. Mass Spectrometer Tuning

GC/MS tuning is performed to ensure mass resolution, identification, and to some degree, sensitivity. The tuning compound (4-bromofluorobenzene) analysis must be performed at the beginning of each 12-hour period during which calibration standards and samples are analyzed and must meet the ion-abundance criteria specified in the analytical method.

GC/MS performance was acceptable, and all analyses were initiated within 12 hours of each instrument tune check.

### 4. Calibration

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable (linear or

quadratic) performance at the beginning of the analytical sequence. The continuing calibration verifies that the day-to-day instrument performance is satisfactory.

### 4.1 Initial Calibration (ICV)

Each target compound in the initial calibration must exhibit a relative response factor (RRF) greater than the control limit of 0.05 and either a percent relative standard deviation (%RSD) within the control limit of 20% or a correlation coefficient greater than 0.99.

All compounds associated with the initial calibration were within the specified control limits.

### 4.2 Continuing Calibration (CCV)

Each target compound associated with the continuing calibration standard must exhibit a percent difference (%D) within the control limit of 20%, and a RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits, with the exception of the compounds presented in the following table.

| Sample Locations | Initial/Continuing | Compound | %D |
|---|---|---|---|
| HR-4-091123/<br>W-2-N/091123/<br>W-3-N/091123/<br>W-4-N/091123/<br>EB-01/091123/<br>TB-01/091123/ | CCVIS 240-587660/3 | Vinyl chloride | -24.6% |

The criteria used to evaluate the initial and continuing calibration are presented in the following table. In the case of a calibration deviation, the sample results are qualified.

| Initial/Continuing | Criteria | Sample Result | Qualification |
|---|---|---|---|
| Opening and Closing Continuing Calibration Verification | Increase in sensitivity: Opening CCV %D >20% or Closing CCV %D >50% | Non-detect | UJ |
| | | Detect | J+ |
| | Decrease in sensitivity: Opening CCV %D >20% or Closing CCV %D >50% | Non-detect | UJ |
| | | Detect | J- |
| | Increase or Decrease in sensitivity: Opening CCV %D >50% or Closing CCV %D >80% | Non-detect | X |
| | | Detect | X |

**Note:**

[1] RRF of 0.01 only applies to compounds which are typically poor responding compounds (i.e., ketones, 1,4-dioxane, etc.)

### 5. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. VOC analysis requires that all surrogates associated with the analysis exhibit recoveries within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

### 6. Internal Standard Performance

Internal standard performance criteria ensure that the GC/MS sensitivity and response are stable during every sample analysis. The criteria require the internal standard compounds associated with the VOC analysis exhibit area counts that are within a factor of two (i.e. 50% - 200%) of the area counts of the associated continuing calibration standard.

All internal standard area counts were within the control limits.

### 7. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

The MS/MSDs from locations W-2-S and RMW-93 exhibited acceptable recoveries and RPDs between the MS/MSD recoveries.

### 8. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS/LCSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS/LCSD analysis exhibited recoveries within the control limits.

### 9. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

| Sample ID and Duplicate ID | Compound | Sample Result | Duplicate Result | RPD |
|---|---|---|---|---|
| W-2-S/091223/ and DUP-01/091223/ | 1,1,1-Trichloroethane | 0.7 J | 2 | AC |
| | cis-1,2-Dichloroethene | 1.1 | 1.3 | 16.7% |
| | Tetrachloroethene | 12 | 11 | 8.7% |

| Sample ID and Duplicate ID | Compound | Sample Result | Duplicate Result | RPD |
|---|---|---|---|---|
| | Trichloroethene | 6.3 | 6 | 4.9% |
| GM-2/091523/ and DUP-02/091523/ | Tetrachloroethene | 37 | 35 | 5.6% |
| | Trichloroethene | 2 | 2 | 0.0% |

Notes:

AC Acceptable

The calculated RPDs and/or results between the parent sample and field duplicate were acceptable.

## 10. Compound Identification

Compounds are identified on the GC/MS by using the analytes relative retention time and ion spectra.

All identified compounds met the specified criteria.

## 11. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## DATA VALIDATION CHECKLIST FOR VOCs

| VOCs: SW-846 8260D | Reported | | Performance Acceptable | | Not Required |
|---|---|---|---|---|---|
| | No | Yes | No | Yes | |
| **GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)** | | | | | |
| **Tier II Validation** | | | | | |
| Holding times | | X | | X | |
| Reporting limits (units) | | X | | X | |
| Blanks | | | | | |
| A. Method blanks | | X | | X | |
| B. Equipment blanks | | X | | X | |
| C. Trip blanks | | X | | X | |
| Laboratory Control Sample (LCS) | | X | | X | |
| Laboratory Control Sample Duplicate (LCSD) | X | | | | X |
| LCS/LCSD Precision (RPD) | X | | | | X |
| Matrix Spike (MS) | | X | | X | |
| Matrix Spike Duplicate (MSD) | | X | | X | |
| MS/MSD Precision (RPD) | | X | | X | |
| Field Duplicate (RPD) | | X | | X | |
| Surrogate Spike Recoveries | | X | | X | |
| Dilution Factor | | X | | X | |
| Moisture Content | X | | | | X |
| **Tier III Validation** | | | | | |
| System performance and column resolution | | X | | X | |
| Initial calibration %RSDs | | X | | X | |
| Continuing calibration RRFs | | X | | X | |
| Continuing calibration %Ds | | X | X | | |
| Instrument tune and performance check | | X | | X | |
| Ion abundance criteria for each instrument used | | X | | X | |
| Internal standard | | X | | X | |
| Instrument tune and performance check | | X | | X | |
| Ion abundance criteria for each instrument used | | X | | X | |
| Internal standard | | X | | X | |
| Compound identification and quantitation | | | | | |

| VOCs: SW-846 8260D | Reported | | Performance Acceptable | | Not Required |
|---|---|---|---|---|---|
| | No | Yes | No | Yes | |
| **GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)** | | | | | |
| A. Reconstructed ion chromatograms | | X | | X | |
| B. Quantitation Reports | | X | | X | |
| C. RT of sample compounds within the established RT windows | | X | | X | |
| D. Transcription/calculation errors present | | X | | X | |
| E. Reporting limits adjusted to reflect sample dilutions | | X | | X | |

**Notes:**

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

## DISSOLVED GASES ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

| Method | Matrix | Holding Time | Preservation |
|---|---|---|---|
| AM20GAX (modified USEPA RSK-175) | Water | 14 days from collection to analysis | Cool to <6 °C; pH < 2 with HCl |

All samples were analyzed within the specified holding time criteria.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank (common laboratory contaminant compounds are calculated at ten times) is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Compounds were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

### 3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable (linear or quadratic) performance at the beginning of the analytical sequence. The continuing calibration verifies that the day-to-day instrument performance is satisfactory.

### 3.1 Initial Calibration (ICV)

Each target compound in the initial calibration must exhibit a relative response factor (RRF) greater than the control limit of 0.05 and either a percent relative standard deviation (%RSD) within the control limit of 20% or a correlation coefficient greater than 0.99.

All compounds associated with the initial calibration were within the specified control limits.

### 3.2 Continuing Calibration (CCV)

Each target compound associated with the continuing calibration standard must exhibit a percent difference (%D) within the control limit of 20%, and a RRF value greater than control limit (0.05).

All compounds associated with the calibrations were within the specified control limits.

## 4. Surrogates/System Monitoring Compounds

All samples to be analyzed for organic compounds are spiked with surrogate compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. Dissolved gases analysis requires that the surrogate associated with the analysis exhibit a recovery within the laboratory-established acceptance limits.

All surrogate recoveries were within control limits.

## 5. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

MS/MSD data are used to assess the precision and accuracy of the analytical method. The compounds used to perform the MS/MSD analysis must exhibit a percent recovery within the laboratory-established acceptance limits. The relative percent difference (RPD) between the MS/MSD recoveries must exhibit an RPD within the laboratory-established acceptance limits.

Note: The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the compound concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater.

MS/MSD samples were not provided for this analysis.

## 6. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The compounds associated with the LCS analysis must exhibit a percent recovery within the laboratory-established acceptance limits.

All compounds associated with the LCS analysis exhibited recoveries within the control limits.

## 7. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 30% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

| Sample ID and Duplicate ID | Compound | Sample Result | Duplicate Result | RPD |
|---|---|---|---|---|
| GM-2/091523/ and DUP-02/091523/ | All compounds | ND | ND | AC |

Notes:

AC Acceptable

The results between the parent sample and field duplicate were acceptable.

## 8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## DATA VALIDATION CHECKLIST FOR DISSOLVED GASES

| Dissolved Gases: AM20GAX (modified RSK-175) | Reported | | Performance Acceptable | | Not Required |
|---|---|---|---|---|---|
| | No | Yes | No | Yes | |
| **GAS CHROMATOGRAPHY/FLAME IONIZATION DETECTOR (GC/FID)** | | | | | |
| **Tier II Validation** | | | | | |
| Holding times | | X | | X | |
| Reporting limits (units) | | X | | X | |
| Blanks | | | | | |
| A. Method blanks | | X | | X | |
| B. Equipment blanks | X | | | | X |
| Laboratory Control Sample (LCS) %R | | X | | X | |
| Laboratory Control Sample Duplicate (LCSD) %R | X | | | | X |
| LCS/LCSD Precision (RPD) | X | | | | X |
| Matrix Spike (MS) %R | X | | | | X |
| Matrix Spike Duplicate (MSD) %R | X | | | | X |
| MS/MSD Precision (RPD) | X | | | | X |
| Field Duplicate (RPD) | | X | | X | |
| Surrogate Spike Recoveries | | X | | X | |
| Dilution Factor | | X | | X | |
| Moisture Content | X | | | | X |
| **Tier III Validation** | | | | | |
| System performance and column resolution | | X | | X | |
| Initial calibration %RSDs | | X | | X | |
| Continuing calibration %Ds | | X | | X | |
| Compound identification and quantitation | | | | | |
| A. Quantitation Reports | | X | | X | |
| B. RT of sample compounds within the established RT windows | | X | | X | |
| C. Transcription/calculation errors present | | X | | X | |
| D. Reporting limits adjusted to reflect sample dilutions | | X | | X | |

**Notes:**

%RSD Relative standard deviation
%R Percent recovery
RPD Relative percent difference
%D Percent difference

## INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 9060A. Data were reviewed in accordance with USEPA National Functional Guidelines for Inorganic Data Review (October 2004) and Quality Assurance Project Plan (QAPP) for Motors Liquidation Company (MLC) Moraine Facilities (August 2023).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UB Analyte is considered non-detect at the listed value due to associated blank contamination.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

## GENERAL CHEMISTRY ANALYSES

### 1. Holding Times

The specified holding times for the following methods are presented in the following table.

| Method | Matrix | Holding Time | Preservation |
|---|---|---|---|
| Total Organic Carbon (TOC) by SW-846 9060A | Water | 28 days from collection to analysis | Cool to <6 °C; pH < 2 |

All samples were analyzed within the specified holding times.

### 2. Blank Contamination

Quality assurance (QA) blanks (i.e., laboratory method blanks and equipment rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

### 3. Calibration

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument daily performance is satisfactory.

The correct number and type of standards were analyzed. The correlation coefficient of the initial calibration was greater than 0.995 and all initial calibration verification standard recoveries were within the control limits.

### 4. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

#### 4.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the

analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS/MSD analysis performed on sample location GM-21 exhibited recoveries and RPD within the control limits.

### 4.2 Laboratory Duplicate Sample Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices and 35% for soil matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices and two times the RL for soil matrices.

A laboratory duplicate sample was not performed.

## 5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

## 6. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices and 50% for soil matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices or three times the RL is applied for soil matrices.

Results for duplicate samples are summarized in the following table.

| Sample ID and Duplicate ID | Analyte | Sample Result | Duplicate Result | RPD |
|---|---|---|---|---|
| GM-2/091523/ and DUP-02/091523/ | TOC | 0.96 J | 1.0 | AC |

Notes:

AC = Acceptable

The calculated RPDs between the parent sample and field duplicate were acceptable.

## 7. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

## DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

| General Chemistry: SW-846 9060A | Reported | | Performance Acceptable | | Not Required |
|---|---|---|---|---|---|
| | No | Yes | No | Yes | |
| Miscellaneous Instrumentation | | | | | |
| **Tier II Validation** | | | | | |
| Holding times | | X | | X | |
| Reporting limits (units) | | X | | X | |
| Blanks | | | | | |
| C. Method blanks | | X | | X | |
| D. Equipment blanks | X | | | | X |
| Laboratory Control Sample (LCS) %R | | X | | X | |
| Laboratory Control Sample Duplicate (LCSD) %R | X | | | | X |
| LCS/LCSD Precision (RPD) | X | | | | X |
| Matrix Spike (MS) %R | | X | | X | |
| Matrix Spike Duplicate (MSD) %R | | X | | X | |
| MS/MSD Precision (RPD) | | X | | X | |
| Field/Lab Duplicate (RPD) | | X | | X | |
| Dilution Factor | | X | | X | |
| Moisture Content | X | | | | X |
| **Tier III Validation** | | | | | |
| Initial calibration %RSD or correlation coefficient | | X | | X | |
| Continuing calibration %R | | X | | X | |
| Raw Data | | | | | |
| Transcription/calculation errors present | | X | | X | |
| Reporting limits adjusted to reflect sample dilutions | | X | | X | |

Notes:
%R - percent recovery
RPD - relative percent difference
%D – difference

VALIDATION PERFORMED BY:

SIGNATURE:

DATE: 12/07/2023

PEER REVIEW: Joseph C. Houser

DATE: 2/19/2024

# CHAIN OF CUSTODY

# CORRECTED SAMPLE ANALYSIS DATA SHEETS

**Eurofins Cleveland**
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

# Chain of Custody Record

6.4/0.2 Columbus 209

eurofins

Environment Testing

| Client Information | Sampler: Luke Holben | Lab PM: DelMonico, Michael | Carrier Tracking No(s): | COC No: 240-111715-39788.1 |
|---|---|---|---|---|
| Client Contact: Kari Eldridge | Phone: 419-704-3859 | E-Mail: Michael.DelMonico@et.eurofinsus.com | State of Origin: OH | Page: LH Page ~~1 of 4~~ 1 of 1 |
| Company: ARCADIS U.S., Inc | PWSID: | | | Job #: |
| Address: 4665 Cornell Road Suite 200 | Due Date Requested: | | | |
| City: Cincinnati | TAT Requested (days): Standard | | | |
| State, Zip: OH, 45241 | Compliance Project: Δ Yes Δ No | | | |
| Phone: | PO #: LH ~~30173252.0003E.3~~ 30173252.0004B | | | |
| Email: kari.eldridge@arcadis.com | WO #: | | | |
| Project Name: Racer Moraine Annual | Project #: 24006917 | | | |
| Site: Racer Moraine OH | SSOW#: | | | |

**Analysis Requested**

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify), Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - VOCs- 12 site compound list | 9060A - Local Method | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| North Lagoon Wells | | | Preservation Code: | | | | A | S | | |
| HR-4/091123/ | 9.11.23 | 12:35 | G | Water | N | N | X | | 3 | |
| W-2-N/091123/ | 9.11.23 | 10:40 | G | Water | N | N | X | | 3 | |
| W-3-N/091123/ | 9.11.23 | 16:45 | G | Water | N | N | X | | 3 | |
| W-4-N/091123/ | 9.11.23 | 14:35 | G | Water | N | N | X | | 3 | |
| EB-01/091123/ | 9.11.23 | 17:30 | G | Water | N | N | X | | 3 | |
| TB-01/091123/ | 9.11.23 | — | G | Water | N | N | X | | 2 | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |

240-191865 Chain of Custody

*Possible Hazard Identification*
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

*Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Level IV

Special Instructions/QC Requirements:

| Empty Kit Relinquished by | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | Luke Holben | 9/15/23 1800 | Arcadis | [illegible] Yoon | 9.16.23 9:25 | [illegible] |
| 2 | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
| 3 | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021



09/24/2023

**Eurofins – Cleveland Sample Receipt Form/Narrative** **Login # :** _____
**Barberton Facility**

Client ARCADIS Site Name _____ Cooler unpacked by: M. Lloca

Cooler Received on 9-16-23 Opened on 9-16-23

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

**Receipt After-hours:** Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 2 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF 0.2 °C) Observed Cooler Temp. 0.4 °C Corrected Cooler Temp. 0.2 °C

| | | |
|---|---|---|
| 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____ | Yes | No |
| -Were the seals on the outside of the cooler(s) signed & dated? | Yes | No NA |
| -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? | Yes | No |
| -Were tamper/custody seals intact and uncompromised? | Yes | No NA |
| 3. Shippers' packing slip attached to the cooler(s)? | Yes | No |
| 4. Did custody papers accompany the sample(s)? | Yes | No |
| 5. Were the custody papers relinquished & signed in the appropriate place? | Yes | No |
| 6. Was/were the person(s) who collected the samples clearly identified on the COC? | Yes | No |
| 7. Did all bottles arrive in good condition (Unbroken)? | Yes | No |
| 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? | Yes | No |
| 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? | | |
| 10. Were correct bottle(s) used for the test(s) indicated? | Yes | No |
| 11. Sufficient quantity received to perform indicated analyses? | Yes | No |
| 12. Are these work share samples and all listed on the COC? | Yes | No |
| If yes, Questions 13-17 have been checked at the originating laboratory. | | |
| 13. Were all preserved sample(s) at the correct pH upon receipt? | Yes | No NA pH Strip Lot# HC312501 |
| 14. Were VOAs on the COC? | Yes | No |
| 15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. | Yes | No NA |
| 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ | Yes | No |
| 17. Was a LL Hg or Me Hg trip blank present? _____ | Yes | No |

**Tests that are not checked for pH by Receiving:**

**VOAs**
**Oil and Grease**
**TOC**

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** ☐ additional next page

Samples processed by:

_____

_____

_____

_____

**19. SAMPLE CONDITION**

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

**20. SAMPLE PRESERVATION**

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Client Sample ID: HR-4/091123/
**Lab Sample ID: 240-191865-1**
**Date Collected: 09/11/23 12:35**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **2.0** | | 1.0 | 0.48 | ug/L | | | 09/19/23 17:53 | 1 |
| **1,1-Dichloroethane** | **1.5** | | 1.0 | 0.47 | ug/L | | | 09/19/23 17:53 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 17:53 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 17:53 | 1 |
| **cis-1,2-Dichloroethene** | **0.73** | **J** | 1.0 | 0.46 | ug/L | | | 09/19/23 17:53 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 17:53 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 17:53 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 17:53 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 17:53 | 1 |
| **Trichloroethene** | **0.44** | **J** | 1.0 | 0.44 | ug/L | | | 09/19/23 17:53 | 1 |
| Vinyl chloride | 1.0 | U J | 1.0 | 0.45 | ug/L | | | 09/19/23 17:53 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 17:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 17:53* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/19/23 17:53* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/19/23 17:53* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/19/23 17:53* | *1* |

## Client Sample ID: W-2-N/091123/
**Lab Sample ID: 240-191865-2**
**Date Collected: 09/11/23 10:40**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 18:18 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 18:18 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 18:18 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:18 | 1 |
| **cis-1,2-Dichloroethene** | **1.7** | | 1.0 | 0.46 | ug/L | | | 09/19/23 18:18 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:18 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:18 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:18 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 18:18 | 1 |
| **Trichloroethene** | **0.55** | **J** | 1.0 | 0.44 | ug/L | | | 09/19/23 18:18 | 1 |
| Vinyl chloride | 1.0 | U J | 1.0 | 0.45 | ug/L | | | 09/19/23 18:18 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 18:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 18:18* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/19/23 18:18* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* | | *09/19/23 18:18* | *1* |
| *Dibromofluoromethane (Surr)* | *101* | | *73 - 120* | | *09/19/23 18:18* | *1* |

## Client Sample ID: W-3-N/091123/
**Lab Sample ID: 240-191865-3**
**Date Collected: 09/11/23 16:45**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 18:43 | 1 |

## Client Sample ID: W-3-N/091123/
**Lab Sample ID: 240-191865-3**
**Date Collected: 09/11/23 16:45**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 18:43 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 18:43 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:43 | 1 |
| **cis-1,2-Dichloroethene** | **13** | | 1.0 | 0.46 | ug/L | | | 09/19/23 18:43 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:43 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:43 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:43 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 18:43 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:43 | 1 |
| **Vinyl chloride** | **0.71** | **J** - | 1.0 | 0.45 | ug/L | | | 09/19/23 18:43 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 18:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 18:43* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/19/23 18:43* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/19/23 18:43* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* | | *09/19/23 18:43* | *1* |

## Client Sample ID: W-4-N/091123/
**Lab Sample ID: 240-191865-4**
**Date Collected: 09/11/23 14:35**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 19:07 | 1 |
| **1,1-Dichloroethane** | **7.5** | | 1.0 | 0.47 | ug/L | | | 09/19/23 19:07 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 19:07 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:07 | 1 |
| **cis-1,2-Dichloroethene** | **6.9** | | 1.0 | 0.46 | ug/L | | | 09/19/23 19:07 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:07 | 1 |
| **Tetrachloroethene** | **0.55** | **J** | 1.0 | 0.44 | ug/L | | | 09/19/23 19:07 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:07 | 1 |
| **trans-1,2-Dichloroethene** | **1.1** | | 1.0 | 0.51 | ug/L | | | 09/19/23 19:07 | 1 |
| **Trichloroethene** | **8.7** | | 1.0 | 0.44 | ug/L | | | 09/19/23 19:07 | 1 |
| Vinyl chloride | 1.0 | U J | 1.0 | 0.45 | ug/L | | | 09/19/23 19:07 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 19:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/19/23 19:07* | *1* |
| *4-Bromofluorobenzene (Surr)* | *89* | | *56 - 136* | | *09/19/23 19:07* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/19/23 19:07* | *1* |
| *Dibromofluoromethane (Surr)* | *101* | | *73 - 120* | | *09/19/23 19:07* | *1* |

## Client Sample ID: EB-01/091123/
**Lab Sample ID: 240-191865-5**
**Date Collected: 09/11/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 19:32 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 19:32 | 1 |

## Client Sample ID: EB-01/091123/
**Lab Sample ID: 240-191865-5**
**Date Collected: 09/11/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 19:32 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:32 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/19/23 19:32 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:32 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:32 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:32 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 19:32 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:32 | 1 |
| Vinyl chloride | 1.0 | U J | 1.0 | 0.45 | ug/L | | | 09/19/23 19:32 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 19:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *94* | | *62 - 137* | | *09/19/23 19:32* | *1* |
| *4-Bromofluorobenzene (Surr)* | *91* | | *56 - 136* | | *09/19/23 19:32* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *78 - 122* | | *09/19/23 19:32* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/19/23 19:32* | *1* |

## Client Sample ID: TB-01/091123/
**Lab Sample ID: 240-191865-6**
**Date Collected: 09/11/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 19:56 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 19:56 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 19:56 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:56 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/19/23 19:56 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:56 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:56 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:56 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 19:56 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:56 | 1 |
| Vinyl chloride | 1.0 | U J | 1.0 | 0.45 | ug/L | | | 09/19/23 19:56 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 19:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 19:56* | *1* |
| *4-Bromofluorobenzene (Surr)* | *90* | | *56 - 136* | | *09/19/23 19:56* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/19/23 19:56* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *73 - 120* | | *09/19/23 19:56* | *1* |

**Eurofins Cleveland**
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

# Chain of Custody Record

Columbus
209

eurofins
Environment Testing

| Client Information | Sampler: Luke Holben | Lab PM: DelMonico, Michael | Carrier Tracking No(s): | COC No: 240-111715-39788.2 |
|---|---|---|---|---|
| Client Contact: Kari Eldridge | Phone: 419-704-3859 | E-Mail: Michael.DelMonico@et.eurofinsus.com | State of Origin: OH | Page: ~~Page 2 of 4~~ ~~10f1~~ LH 1 of 1 |
| Company: ARCADIS U.S., Inc | PWSID: | Analysis Requested | | Job #: |
| Address: 4665 Cornell Road Suite 200 | Due Date Requested: | | | Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other: |
| City: Cincinnati | TAT Requested (days): Standard | | | |
| State, Zip: OH, 45241 | Compliance Project: Δ Yes Δ No | | | |
| Phone: | PO #: ~~30173252.0003E~~ LH 30173252.00095 | | | |
| Email: kari.eldridge@arcadis.com | WO #: | | | |
| Project Name: Racer Moraine Annual | Project #: 24006917 | | | |
| Site: Racer Moraine OH | SSOW#: | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - VOCs- 12 site compound list | 9060A - Local Method | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| South Lagoon Wells | | | Preservation Code: | | | | A | S | | |
| W-2-S/091223/ | 9.12.23 | 1110 | G | Water | N | Y | X | | 9 | MS/MSD |
| W-4-S/091223/ | 9.12.23 | 1240 | G | Water | N | N | X | | 4 | 10x dilution |
| W-3-S/091223/ | 9.12.23 | 1400 | G | Water | N | N | X | | 4 | 10x dilution |
| HR-17/091223/ | 9.12.23 | 1530 | G | Water | N | N | X | | 4 | 10x dilution |
| DUP-01/091223/ | 9.12.23 | — | G | Water | N | N | X | | 3 | |
| EB-02/091223/ | 9.12.23 | 1730 | G | Water | N | N | X | | 3 | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |

240-191867 Chain of Custody

*Possible Hazard Identification*
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

*Sample Disposal ( A fee may be assessed if sa...*
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Level IV

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|
| Luke Holben | 9/13/23 1800 | Arcadis | Modesq (ocr | 9.16.23 9.22 | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021



09/26/2023

**Eurofins – Cleveland Sample Receipt Form/Narrative** **Login # :** _____
**Barberton Facility**

Client ARCADIS Site Name _____ Cooler unpacked by: M. Loca

Cooler Received on 9-16-23 Opened on 9-16-23

FedEx: 1st ~~Grd~~ ~~Exp~~ UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

**Receipt After-hours:** Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 21 Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: Wet Ice ~~Blue Ice~~ Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF ~~0.2~~ °C) Observed Cooler Temp. 0.4 °C Corrected Cooler Temp. 0.2 °C

| | |
|---|---|
| 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ | Yes No |
| -Were the seals on the outside of the cooler(s) signed & dated? | Yes No NA |
| -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? | Yes No |
| -Were tamper/custody seals intact and uncompromised? | Yes No NA |
| 3. Shippers' packing slip attached to the cooler(s)? | Yes No |
| 4. Did custody papers accompany the sample(s)? | Yes No |
| 5. Were the custody papers relinquished & signed in the appropriate place? | Yes No |
| 6. Was/were the person(s) who collected the samples clearly identified on the COC? | Yes No |
| 7. Did all bottles arrive in good condition (Unbroken)? | Yes No |
| 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? | Yes No |
| 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? | |
| 10. Were correct bottle(s) used for the test(s) indicated? | Yes No |
| 11. Sufficient quantity received to perform indicated analyses? | Yes No |
| 12. Are these work share samples and all listed on the COC? | Yes No |
| If yes, Questions 13-17 have been checked at the originating laboratory. | |
| 13. Were all preserved sample(s) at the correct pH upon receipt? | Yes No NA pH Strip Lot# HC312501 |
| 14. Were VOAs on the COC? | Yes No |
| 15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. | Yes No NA |
| 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ | Yes No |
| 17. Was a LL Hg or Me Hg trip blank present? _____ | Yes No |

**Tests that are not checked for pH by Receiving:**

**VOAs**
**Oil and Grease**
**TOC**

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** ☐ additional next page

Samples processed by: _____

**19. SAMPLE CONDITION**

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

**20. SAMPLE PRESERVATION**

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Client Sample ID: W-2-S/091223/
**Lab Sample ID: 240-191867-1**

**Date Collected: 09/12/23 11:10**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **0.70** | **J** | 1.0 | 0.48 | ug/L | | | 09/22/23 16:14 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 16:14 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 16:14 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 16:14 | 1 |
| **cis-1,2-Dichloroethene** | **1.1** | | 1.0 | 0.46 | ug/L | | | 09/22/23 16:14 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 16:14 | 1 |
| **Tetrachloroethene** | **12** | | 1.0 | 0.44 | ug/L | | | 09/22/23 16:14 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 16:14 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 16:14 | 1 |
| **Trichloroethene** | **6.3** | | 1.0 | 0.44 | ug/L | | | 09/22/23 16:14 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 16:14 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 16:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/22/23 16:14* | *1* |
| *4-Bromofluorobenzene (Surr)* | *84* | | *56 - 136* | | *09/22/23 16:14* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/22/23 16:14* | *1* |
| *Dibromofluoromethane (Surr)* | *104* | | *73 - 120* | | *09/22/23 16:14* | *1* |

## Client Sample ID: W-4-S/091223/
**Lab Sample ID: 240-191867-2**

**Date Collected: 09/12/23 12:40**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **1.0** | | 1.0 | 0.48 | ug/L | | | 09/22/23 17:24 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 17:24 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 17:24 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 17:24 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/22/23 17:24 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 17:24 | 1 |
| **Tetrachloroethene** | **22** | | 1.0 | 0.44 | ug/L | | | 09/22/23 17:24 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 17:24 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 17:24 | 1 |
| **Trichloroethene** | **1.0** | | 1.0 | 0.44 | ug/L | | | 09/22/23 17:24 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 17:24 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 17:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *62 - 137* | | *09/22/23 17:24* | *1* |
| *4-Bromofluorobenzene (Surr)* | *84* | | *56 - 136* | | *09/22/23 17:24* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/22/23 17:24* | *1* |
| *Dibromofluoromethane (Surr)* | *96* | | *73 - 120* | | *09/22/23 17:24* | *1* |

## Client Sample ID: W-3-S/091223/
**Lab Sample ID: 240-191867-3**

**Date Collected: 09/12/23 14:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 17:48 | 5 |

## Client Sample ID: W-3-S/091223/
**Lab Sample ID: 240-191867-3**

**Date Collected: 09/12/23 14:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 17:48 | 5 |
| 1,1-Dichloroethene | 5.0 | U | 5.0 | 2.5 | ug/L | | | 09/22/23 17:48 | 5 |
| Benzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 17:48 | 5 |
| cis-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 17:48 | 5 |
| Ethylbenzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 17:48 | 5 |
| **Tetrachloroethene** | **150** | | 5.0 | 2.2 | ug/L | | | 09/22/23 17:48 | 5 |
| Toluene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 17:48 | 5 |
| trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.6 | ug/L | | | 09/22/23 17:48 | 5 |
| Trichloroethene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 17:48 | 5 |
| Vinyl chloride | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 17:48 | 5 |
| Xylenes, Total | 10 | U | 10 | 2.1 | ug/L | | | 09/22/23 17:48 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *94* | | *62 - 137* | | *09/22/23 17:48* | *5* |
| *4-Bromofluorobenzene (Surr)* | *86* | | *56 - 136* | | *09/22/23 17:48* | *5* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/22/23 17:48* | *5* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/22/23 17:48* | *5* |

## Client Sample ID: HR-17/091223/
**Lab Sample ID: 240-191867-4**

**Date Collected: 09/12/23 15:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 18:12 | 5 |
| 1,1-Dichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 18:12 | 5 |
| 1,1-Dichloroethene | 5.0 | U | 5.0 | 2.5 | ug/L | | | 09/22/23 18:12 | 5 |
| Benzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 18:12 | 5 |
| cis-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 18:12 | 5 |
| Ethylbenzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 18:12 | 5 |
| **Tetrachloroethene** | **200** | | 5.0 | 2.2 | ug/L | | | 09/22/23 18:12 | 5 |
| Toluene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 18:12 | 5 |
| trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.6 | ug/L | | | 09/22/23 18:12 | 5 |
| Trichloroethene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 18:12 | 5 |
| Vinyl chloride | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 18:12 | 5 |
| Xylenes, Total | 10 | U | 10 | 2.1 | ug/L | | | 09/22/23 18:12 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *89* | | *62 - 137* | | *09/22/23 18:12* | *5* |
| *4-Bromofluorobenzene (Surr)* | *82* | | *56 - 136* | | *09/22/23 18:12* | *5* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* | | *09/22/23 18:12* | *5* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* | | *09/22/23 18:12* | *5* |

## Client Sample ID: DUP-01/091223/
**Lab Sample ID: 240-191867-5**

**Date Collected: 09/12/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **1.0** | | 1.0 | 0.48 | ug/L | | | 09/22/23 18:35 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 18:35 | 1 |

## Client Sample ID: DUP-01/091223/
**Lab Sample ID: 240-191867-5**

**Date Collected: 09/12/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 18:35 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:35 | 1 |
| **cis-1,2-Dichloroethene** | **1.3** | | 1.0 | 0.46 | ug/L | | | 09/22/23 18:35 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:35 | 1 |
| **Tetrachloroethene** | **11** | | 1.0 | 0.44 | ug/L | | | 09/22/23 18:35 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:35 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 18:35 | 1 |
| **Trichloroethene** | **6.0** | | 1.0 | 0.44 | ug/L | | | 09/22/23 18:35 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 18:35 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 18:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *62 - 137* | | *09/22/23 18:35* | *1* |
| *4-Bromofluorobenzene (Surr)* | *88* | | *56 - 136* | | *09/22/23 18:35* | *1* |
| *Toluene-d8 (Surr)* | *89* | | *78 - 122* | | *09/22/23 18:35* | *1* |
| *Dibromofluoromethane (Surr)* | *104* | | *73 - 120* | | *09/22/23 18:35* | *1* |

## Client Sample ID: EB-02/091223/
**Lab Sample ID: 240-191867-6**

**Date Collected: 09/12/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/22/23 18:58 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 18:58 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 18:58 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:58 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/22/23 18:58 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:58 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:58 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:58 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 18:58 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:58 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 18:58 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 18:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *62 - 137* | | *09/22/23 18:58* | *1* |
| *4-Bromofluorobenzene (Surr)* | *85* | | *56 - 136* | | *09/22/23 18:58* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* | | *09/22/23 18:58* | *1* |
| *Dibromofluoromethane (Surr)* | *108* | | *73 - 120* | | *09/22/23 18:58* | *1* |

**Eurofins Cleveland**
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

# Chain of Custody Record

Columbus
209

eurofins
Environment Testing

| Client Information | Sampler: Luke Holben | Lab PM: DelMonico, Michael | Carrier Tracking No(s): | COC No: 240-111715-39788.3 |
|---|---|---|---|---|
| Client Contact: Kari Eldridge | Phone: 419-704-3859 | E-Mail: Michael.DelMonico@et.eurofinsus.com | State of Origin: OH | Page: ~~Page 3 of 4~~ LH 1 of 2 |
| Company: ARCADIS U.S., Inc | PWSID: | Analysis Requested | | Job #: |
| Address: 4665 Cornell Road Suite 200 | Due Date Requested: | | | Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify) |
| City: Cincinnati | TAT Requested (days): Standard | | | |
| State, Zip: OH, 45241 | Compliance Project: Δ Yes Δ No | | | |
| Phone: | PO #: ~~30173252.00045~~ LH 30173252.00045 | | | |
| Email: kari.eldridge@arcadis.com | WO #: | | | |
| Project Name: Racer Moraine Annual | Project #: 24006917 | | | |
| Site: Racer Moraine OH | SSOW#: | | | Other: |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - VOCs - 12 site compound list | 9060A - Local Method | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | A | S | | |
| RMW-94/091223/ | 9.12.23 | 1705 | G | Water | N | N | X | | 3 | |
| EB-03/091323/ | 9.13.23 | 1720 | G | Water | N | N | X | | 3 | |
| GM-64/091323/ | 9.13.23 | 1210 | G | Water | N | N | X | | 3 | |
| GM-63/091323/ | 9.13.23 | 1325 | G | Water | N | N | X | | 3 | |
| RMW-93/091323/ | 9.13.23 | 1510 | G | Water | N | Y | X | | 9 | MS/MSD |
| WSU-23/091323/ | 9.13.23 | 1650 | G | Water | N | N | X | | 3 | |
| GM-51/091423/ | 9.14.23 | 1025 | G | Water | N | N | X | | 3 | |
| RMW-102/091423/ | 9.14.23 | 1205 | G | Water | N | N | X | | 3 | |
| RMW-101/091423/ | 9.14.23 | 1350 | G | Water | N | N | X | | 3 | |
| RMW-99/091423/ | 9.14.23 | 1530 | G | Water | N | N | X | | 3 | |
| GM-47/091423/ | 9.14.23 | 1730 | G | Water | N | N | X | | 3 | |

240-191870 Chain of Custody

**Possible Hazard Identification**
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

**Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)**
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Level IV

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | Luke Holben | 9/15/23 1800 | Arcadis | M. Loan | 9-16-23 9:25 | Eurofins |
| 2 | | | | | | |
| 3 | | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|
| | | |

Ver: 06/08/2021

**Eurofins Cleveland**
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

# Chain of Custody Record

Columbus
209

eurofins
Environment Testing

| Client Information | Sampler: Luke Holben | Lab PM: DelMonico, Michael | Carrier Tracking No(s): | COC No: 240-111715-39788.4 |
|---|---|---|---|---|
| Client Contact: Kari Eldridge | Phone: 419-704-3859 | E-Mail: Michael.DelMonico@et.eurofinsus.com | State of Origin: OH | Page: LH Page ~~1 of 1~~ 2 of 2 |
| Company: ARCADIS U.S., Inc | PWSID: | Analysis Requested | | Job #: |
| Address: 4665 Cornell Road Suite 200 | Due Date Requested: | | | Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other: |
| City: Cincinnati | TAT Requested (days): Standard | | | |
| State, Zip: OH, 45241 | Compliance Project: ☐ Yes ☒ No | | | |
| Phone: | PO #: LH ~~30173252.0003E-3~~ 30173252.0004B | | | |
| Email: kari.eldridge@arcadis.com | WO #: | | | |
| Project Name: Racer Moraine Annual | Project #: 24006917 | | | |
| Site: Racer Moraine OH | SSOW#: | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - VOCs- 12 site compound list | 9060A - Local Method | | | | | | | | | | | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | A | S | | | | | | | | | | | | |
| GM-50/091423/ | 9.14.23 | 1850 | G | Water | N | N | X | | | | | | | | | | | | 3 | |
| EB-04/091423/ | 9.14.23 | 1900 | G | Water | N | N | X | | | | | | | | | | | | 3 | |
| GM-32/091323/ | 9.13.23 | 1015 | G | Water | N | N | X | X | | | | | | | | | | | 5 | |
| GM-21/091523/ | 9.15.23 | 1140 | G | Water | N | N | X | X | | | | | | | | | | | 5 | |
| GM-195/091523/ | 9.15.23 | 1310 | G | Water | N | N | X | X | | | | | | | | | | | 5 | |
| GM-2/091523/ | 9.15.23 | 1450 | G | Water | N | N | X | X | | | | | | | | | | | 5 | |
| DN-13/091523/ | 9.15.23 | 1535 | G | Water | N | N | X | | | | | | | | | | | | 3 | |
| DUP-02/091523/ | 9.15.23 | — | G | Water | N | N | X | X | | | | | | | | | | | 5 | |
| EB-05/091523/ | 9.15.23 | 1545 | G | Water | N | N | X | | | | | | | | | | | | 3 | |
| | | | | Water | | | | | | | | | | | | | | | | |
| | | | | Water | | | | | | | | | | | | | | | | |

*Possible Hazard Identification*
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

*Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) Level IV

Special Instructions/QC Requirements

| Empty Kit Relinquished by | Date | Time | Method of Shipment |
|---|---|---|---|
| | | | |

| Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|
| Luke Holben | 9/15/23 1800 | Arcadis | [signature] | 9.16.23 9:25 | [illegible] |
| | | | | | |
| | | | | | |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No. | Cooler Temperature(s) °C and Other Remarks |
|---|---|---|
| | | |

Ver: 06/08/2021

**Eurofins – Cleveland Sample Receipt Form/Narrative** **Login # :**_____
**Barberton Facility**

Client ARCadis Site Name_____ Cooler unpacked by: M. Hoch

Cooler Received on 9-16-23 Opened on 9-16-23

FedEx: 1st ~~Grd~~ Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other_____

**Receipt After-hours:** Drop-off Date/Time_____ Storage Location_____

Eurofins Cooler # 2 Foam Box Client Cooler Box Other_____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other_____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF 0.2 °C) Observed Cooler Temp. 0.4 °C Corrected Cooler Temp. 0.2 °C

| | | |
|---|---|---|
| 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____ | Yes | No |
| -Were the seals on the outside of the cooler(s) signed & dated? | Yes | No NA |
| -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? | Yes | No |
| -Were tamper/custody seals intact and uncompromised? | Yes | No NA |
| 3. Shippers' packing slip attached to the cooler(s)? | Yes | No |
| 4. Did custody papers accompany the sample(s)? | Yes | No |
| 5. Were the custody papers relinquished & signed in the appropriate place? | Yes | No |
| 6. Was/were the person(s) who collected the samples clearly identified on the COC? | Yes | No |
| 7. Did all bottles arrive in good condition (Unbroken)? | Yes | No |
| 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? | Yes | No |
| 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? | | |
| 10. Were correct bottle(s) used for the test(s) indicated? | ~~Yes~~ | No |
| 11. Sufficient quantity received to perform indicated analyses? | ~~Yes~~ | No |
| 12. Are these work share samples and all listed on the COC? | Yes | ~~No~~ |
| If yes, Questions 13-17 have been checked at the originating laboratory. | | |
| 13. Were all preserved sample(s) at the correct pH upon receipt? | Yes | No ~~NA~~ pH Strip Lot# HC312501 |
| 14. Were VOAs on the COC? | ~~Yes~~ | No |
| 15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. | Yes | ~~No~~ NA |
| 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ | Yes | ~~No~~ |
| 17. Was a LL Hg or Me Hg trip blank present? _____ | Yes | ~~No~~ |

**Tests that are not checked for pH by Receiving:**

**VOAs**
**Oil and Grease**
**TOC**

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** ☐ additional next page

Samples processed by:

**19. SAMPLE CONDITION**

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

**20. SAMPLE PRESERVATION**

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

## Client Sample ID: RMW-94/091223/
**Lab Sample ID: 240-191870-1**

**Date Collected: 09/12/23 17:05**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/20/23 20:12 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/20/23 20:12 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/20/23 20:12 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/20/23 20:12 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/20/23 20:12 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/20/23 20:12 | 1 |
| **Tetrachloroethene** | **3.0** | | 1.0 | 0.44 | ug/L | | | 09/20/23 20:12 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/20/23 20:12 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/20/23 20:12 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/20/23 20:12 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/20/23 20:12 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/20/23 20:12 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/20/23 20:12* | *1* |
| *4-Bromofluorobenzene (Surr)* | *89* | | *56 - 136* | | *09/20/23 20:12* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/20/23 20:12* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* | | *09/20/23 20:12* | *1* |

## Client Sample ID: EB-03/091323/
**Lab Sample ID: 240-191870-2**

**Date Collected: 09/13/23 17:20**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 00:08 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 00:08 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 00:08 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 00:08 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 00:08 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 00:08 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 00:08 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 00:08 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 00:08 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 00:08 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 00:08 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 00:08 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *62 - 137* | | *09/23/23 00:08* | *1* |
| *4-Bromofluorobenzene (Surr)* | *91* | | *56 - 136* | | *09/23/23 00:08* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/23/23 00:08* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* | | *09/23/23 00:08* | *1* |

## Client Sample ID: GM-64/091323/
**Lab Sample ID: 240-191870-3**

**Date Collected: 09/13/23 12:10**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 00:33 | 1 |

## Client Sample ID: GM-64/091323/
**Lab Sample ID: 240-191870-3**

**Date Collected: 09/13/23 12:10**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1-Dichloroethane** | **0.50** | **J** | 1.0 | 0.47 | ug/L | | | 09/23/23 00:33 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 00:33 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 00:33 | 1 |
| **cis-1,2-Dichloroethene** | **1.1** | | 1.0 | 0.46 | ug/L | | | 09/23/23 00:33 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 00:33 | 1 |
| **Tetrachloroethene** | **3.2** | | 1.0 | 0.44 | ug/L | | | 09/23/23 00:33 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 00:33 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 00:33 | 1 |
| **Trichloroethene** | **0.64** | **J** | 1.0 | 0.44 | ug/L | | | 09/23/23 00:33 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 00:33 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 00:33 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/23/23 00:33* | *1* |
| *4-Bromofluorobenzene (Surr)* | *94* | | *56 - 136* | | *09/23/23 00:33* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 00:33* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 00:33* | *1* |

## Client Sample ID: GM-63/091323/
**Lab Sample ID: 240-191870-4**

**Date Collected: 09/13/23 13:25**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **0.64** | **J** | 1.0 | 0.48 | ug/L | | | 09/23/23 00:58 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 00:58 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 00:58 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 00:58 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 00:58 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 00:58 | 1 |
| **Tetrachloroethene** | **5.0** | | 1.0 | 0.44 | ug/L | | | 09/23/23 00:58 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 00:58 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 00:58 | 1 |
| **Trichloroethene** | **0.52** | **J** | 1.0 | 0.44 | ug/L | | | 09/23/23 00:58 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 00:58 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 00:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *62 - 137* | | *09/23/23 00:58* | *1* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *56 - 136* | | *09/23/23 00:58* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/23/23 00:58* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 00:58* | *1* |

## Client Sample ID: RMW-93/091323/
**Lab Sample ID: 240-191870-5**

**Date Collected: 09/13/23 15:10**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 01:22 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 01:22 | 1 |

## Client Sample ID: RMW-93/091323/
**Lab Sample ID: 240-191870-5**
**Date Collected: 09/13/23 15:10**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 01:22 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 01:22 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 01:22 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 01:22 | 1 |
| **Tetrachloroethene** | **1.7** | | 1.0 | 0.44 | ug/L | | | 09/23/23 01:22 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 01:22 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 01:22 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 01:22 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 01:22 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 01:22 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/23/23 01:22* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/23/23 01:22* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/23/23 01:22* | *1* |
| *Dibromofluoromethane (Surr)* | *95* | | *73 - 120* | | *09/23/23 01:22* | *1* |

## Client Sample ID: WSU-23/091323/
**Lab Sample ID: 240-191870-6**
**Date Collected: 09/13/23 16:50**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **1.2** | | 1.0 | 0.48 | ug/L | | | 09/23/23 01:47 | 1 |
| **1,1-Dichloroethane** | **0.64** | **J** | 1.0 | 0.47 | ug/L | | | 09/23/23 01:47 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 01:47 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 01:47 | 1 |
| **cis-1,2-Dichloroethene** | **0.86** | **J** | 1.0 | 0.46 | ug/L | | | 09/23/23 01:47 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 01:47 | 1 |
| **Tetrachloroethene** | **37** | | 1.0 | 0.44 | ug/L | | | 09/23/23 01:47 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 01:47 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 01:47 | 1 |
| **Trichloroethene** | **5.5** | | 1.0 | 0.44 | ug/L | | | 09/23/23 01:47 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 01:47 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 01:47 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *62 - 137* | | *09/23/23 01:47* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/23/23 01:47* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/23/23 01:47* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 01:47* | *1* |

## Client Sample ID: GM-51/091423/
**Lab Sample ID: 240-191870-7**
**Date Collected: 09/14/23 10:25**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **0.75** | **J** | 1.0 | 0.48 | ug/L | | | 09/23/23 02:11 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 02:11 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 02:11 | 1 |

## Client Sample ID: GM-51/091423/
**Lab Sample ID: 240-191870-7**

**Date Collected: 09/14/23 10:25**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 02:11 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 02:11 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 02:11 | 1 |
| **Tetrachloroethene** | **24** | | 1.0 | 0.44 | ug/L | | | 09/23/23 02:11 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 02:11 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 02:11 | 1 |
| **Trichloroethene** | **0.86** | **J** | 1.0 | 0.44 | ug/L | | | 09/23/23 02:11 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 02:11 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 02:11 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *62 - 137* | | *09/23/23 02:11* | *1* |
| *4-Bromofluorobenzene (Surr)* | *93* | | *56 - 136* | | *09/23/23 02:11* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 02:11* | *1* |
| *Dibromofluoromethane (Surr)* | *101* | | *73 - 120* | | *09/23/23 02:11* | *1* |

## Client Sample ID: RMW-102/091423/
**Lab Sample ID: 240-191870-8**

**Date Collected: 09/14/23 12:05**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 02:36 | 1 |
| **1,1-Dichloroethane** | **0.92** | **J** | 1.0 | 0.47 | ug/L | | | 09/23/23 02:36 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 02:36 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 02:36 | 1 |
| **cis-1,2-Dichloroethene** | **1.1** | | 1.0 | 0.46 | ug/L | | | 09/23/23 02:36 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 02:36 | 1 |
| **Tetrachloroethene** | **7.1** | | 1.0 | 0.44 | ug/L | | | 09/23/23 02:36 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 02:36 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 02:36 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 02:36 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 02:36 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 02:36 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *62 - 137* | | *09/23/23 02:36* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/23/23 02:36* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 02:36* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/23/23 02:36* | *1* |

## Client Sample ID: RMW-101/091423/
**Lab Sample ID: 240-191870-9**

**Date Collected: 09/14/23 13:50**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 03:01 | 1 |
| **1,1-Dichloroethane** | **0.79** | **J** | 1.0 | 0.47 | ug/L | | | 09/23/23 03:01 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 03:01 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 03:01 | 1 |

## Client Sample ID: RMW-101/091423/
**Lab Sample ID: 240-191870-9**

**Date Collected: 09/14/23 13:50**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **cis-1,2-Dichloroethene** | **0.46** | **J** | 1.0 | 0.46 | ug/L | | | 09/23/23 03:01 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 03:01 | 1 |
| **Tetrachloroethene** | **0.46** | **J** | 1.0 | 0.44 | ug/L | | | 09/23/23 03:01 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 03:01 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 03:01 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 03:01 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 03:01 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 03:01 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *99* | | *62 - 137* | | *09/23/23 03:01* | *1* |
| *4-Bromofluorobenzene (Surr)* | *93* | | *56 - 136* | | *09/23/23 03:01* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 03:01* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/23/23 03:01* | *1* |

## Client Sample ID: RMW-99/091423/
**Lab Sample ID: 240-191870-10**

**Date Collected: 09/14/23 15:30**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **0.67** | **J** | 1.0 | 0.48 | ug/L | | | 09/23/23 03:26 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 03:26 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 03:26 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 03:26 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 03:26 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 03:26 | 1 |
| **Tetrachloroethene** | **25** | | 1.0 | 0.44 | ug/L | | | 09/23/23 03:26 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 03:26 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 03:26 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 03:26 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 03:26 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 03:26 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *62 - 137* | | *09/23/23 03:26* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/23/23 03:26* | *1* |
| *Toluene-d8 (Surr)* | *91* | | *78 - 122* | | *09/23/23 03:26* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 03:26* | *1* |

## Client Sample ID: GM-47/091423/
**Lab Sample ID: 240-191870-11**

**Date Collected: 09/14/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 03:51 | 1 |
| **1,1-Dichloroethane** | **0.86** | **J** | 1.0 | 0.47 | ug/L | | | 09/23/23 03:51 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 03:51 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 03:51 | 1 |
| **cis-1,2-Dichloroethene** | **4.9** | | 1.0 | 0.46 | ug/L | | | 09/23/23 03:51 | 1 |

## Client Sample ID: GM-47/091423/
**Lab Sample ID: 240-191870-11**

**Date Collected: 09/14/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 03:51 | 1 |
| **Tetrachloroethene** | **24** | | 1.0 | 0.44 | ug/L | | | 09/23/23 03:51 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 03:51 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 03:51 | 1 |
| **Trichloroethene** | **13** | | 1.0 | 0.44 | ug/L | | | 09/23/23 03:51 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 03:51 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 03:51 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *98* | | *62 - 137* | | *09/23/23 03:51* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/23/23 03:51* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 03:51* | *1* |
| *Dibromofluoromethane (Surr)* | *102* | | *73 - 120* | | *09/23/23 03:51* | *1* |

## Client Sample ID: GM-50/091423/
**Lab Sample ID: 240-191870-12**

**Date Collected: 09/14/23 18:50**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **1.2** | | 1.0 | 0.48 | ug/L | | | 09/23/23 04:16 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 04:16 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 04:16 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 04:16 | 1 |
| **cis-1,2-Dichloroethene** | **0.54** | **J** | 1.0 | 0.46 | ug/L | | | 09/23/23 04:16 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 04:16 | 1 |
| **Tetrachloroethene** | **5.1** | | 1.0 | 0.44 | ug/L | | | 09/23/23 04:16 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 04:16 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 04:16 | 1 |
| **Trichloroethene** | **1.1** | | 1.0 | 0.44 | ug/L | | | 09/23/23 04:16 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 04:16 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 04:16 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *62 - 137* | | *09/23/23 04:16* | *1* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *56 - 136* | | *09/23/23 04:16* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/23/23 04:16* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 04:16* | *1* |

## Client Sample ID: EB-04/091423/
**Lab Sample ID: 240-191870-13**

**Date Collected: 09/14/23 19:00**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 04:41 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 04:41 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 04:41 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 04:41 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 04:41 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 04:41 | 1 |

## Client Sample ID: EB-04/091423/
**Lab Sample ID: 240-191870-13**
**Date Collected: 09/14/23 19:00**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 04:41 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 04:41 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 04:41 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 04:41 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 04:41 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 04:41 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *94* | | *62 - 137* | | *09/23/23 04:41* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/23/23 04:41* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 04:41* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 04:41* | *1* |

## Client Sample ID: GM-32/091323/
**Lab Sample ID: 240-191870-14**
**Date Collected: 09/13/23 10:15**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 05:05 | 1 |
| **1,1-Dichloroethane** | **0.70** | **J** | 1.0 | 0.47 | ug/L | | | 09/23/23 05:05 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 05:05 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 05:05 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 05:05 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 05:05 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 05:05 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 05:05 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 05:05 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 05:05 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 05:05 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 05:05 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *62 - 137* | | *09/23/23 05:05* | *1* |
| *4-Bromofluorobenzene (Surr)* | *91* | | *56 - 136* | | *09/23/23 05:05* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/23/23 05:05* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* | | *09/23/23 05:05* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **TOC Result 1 (SW846 9060A)** | **2.5** | | 1.0 | 0.44 | mg/L | | | 09/21/23 23:39 | 1 |
| **TOC Result 2 (SW846 9060A)** | **2.4** | | 1.0 | 0.44 | mg/L | | | 09/21/23 23:39 | 1 |
| **TOC Result 3 (SW846 9060A)** | **2.5** | | 1.0 | 0.44 | mg/L | | | 09/21/23 23:39 | 1 |
| **TOC Result 4 (SW846 9060A)** | **2.4** | | 1.0 | 0.44 | mg/L | | | 09/21/23 23:39 | 1 |
| **Total Organic Carbon (SW846 9060A)** | **2.4** | | 1.0 | 0.44 | mg/L | | | 09/21/23 23:39 | 1 |

## Client Sample ID: GM-21/091523/
**Lab Sample ID: 240-191870-15**

**Date Collected: 09/15/23 11:40**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 05:30 | 1 |
| **1,1-Dichloroethane** | **5.4** | | 1.0 | 0.47 | ug/L | | | 09/23/23 05:30 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 05:30 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 05:30 | 1 |
| **cis-1,2-Dichloroethene** | **4.8** | | 1.0 | 0.46 | ug/L | | | 09/23/23 05:30 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 05:30 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 05:30 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 05:30 | 1 |
| **trans-1,2-Dichloroethene** | **0.96** | **J** | 1.0 | 0.51 | ug/L | | | 09/23/23 05:30 | 1 |
| **Trichloroethene** | **0.55** | **J** | 1.0 | 0.44 | ug/L | | | 09/23/23 05:30 | 1 |
| **Vinyl chloride** | **2.0** | | 1.0 | 0.45 | ug/L | | | 09/23/23 05:30 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 05:30 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/23/23 05:30* | *1* |
| *4-Bromofluorobenzene (Surr)* | *93* | | *56 - 136* | | *09/23/23 05:30* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/23/23 05:30* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *73 - 120* | | *09/23/23 05:30* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **TOC Result 1 (SW846 9060A)** | **29** | | 5.0 | 2.2 | mg/L | | | 09/21/23 23:00 | 5 |
| **TOC Result 2 (SW846 9060A)** | **27** | | 5.0 | 2.2 | mg/L | | | 09/21/23 23:00 | 5 |
| **TOC Result 3 (SW846 9060A)** | **29** | | 5.0 | 2.2 | mg/L | | | 09/21/23 23:00 | 5 |
| **TOC Result 4 (SW846 9060A)** | **28** | | 5.0 | 2.2 | mg/L | | | 09/21/23 23:00 | 5 |
| **Total Organic Carbon (SW846 9060A)** | **28** | | 5.0 | 2.2 | mg/L | | | 09/21/23 23:00 | 5 |

## Client Sample ID: GM19S/091523/
**Lab Sample ID: 240-191870-16**

**Date Collected: 09/15/23 13:10**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 05:55 | 1 |
| **1,1-Dichloroethane** | **1.8** | | 1.0 | 0.47 | ug/L | | | 09/23/23 05:55 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 05:55 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 05:55 | 1 |
| **cis-1,2-Dichloroethene** | **26** | | 1.0 | 0.46 | ug/L | | | 09/23/23 05:55 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 05:55 | 1 |
| **Tetrachloroethene** | **5.5** | | 1.0 | 0.44 | ug/L | | | 09/23/23 05:55 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 05:55 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 05:55 | 1 |
| **Trichloroethene** | **3.9** | | 1.0 | 0.44 | ug/L | | | 09/23/23 05:55 | 1 |
| **Vinyl chloride** | **0.74** | **J** | 1.0 | 0.45 | ug/L | | | 09/23/23 05:55 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 05:55 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/23/23 05:55* | *1* |
| *4-Bromofluorobenzene (Surr)* | *95* | | *56 - 136* | | *09/23/23 05:55* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 05:55* | *1* |

## Client Sample ID: GM19S/091523/
**Lab Sample ID: 240-191870-16**
**Date Collected: 09/15/23 13:10**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Dibromofluoromethane (Surr)* | *97* | | *73 - 120* | | *09/23/23 05:55* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **TOC Result 1 (SW846 9060A)** | **1.2** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:04 | 1 |
| **TOC Result 2 (SW846 9060A)** | **1.2** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:04 | 1 |
| **TOC Result 3 (SW846 9060A)** | **1.2** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:04 | 1 |
| **TOC Result 4 (SW846 9060A)** | **1.2** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:04 | 1 |
| **Total Organic Carbon (SW846 9060A)** | **1.2** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:04 | 1 |

## Client Sample ID: GM-2/091523/
**Lab Sample ID: 240-191870-17**
**Date Collected: 09/15/23 14:50**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 06:20 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 06:20 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 06:20 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 06:20 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 06:20 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 06:20 | 1 |
| **Tetrachloroethene** | **37** | | 1.0 | 0.44 | ug/L | | | 09/23/23 06:20 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 06:20 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 06:20 | 1 |
| **Trichloroethene** | **2.0** | | 1.0 | 0.44 | ug/L | | | 09/23/23 06:20 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 06:20 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 06:20 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/23/23 06:20* | *1* |
| *4-Bromofluorobenzene (Surr)* | *93* | | *56 - 136* | | *09/23/23 06:20* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/23/23 06:20* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/23/23 06:20* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **TOC Result 1 (SW846 9060A)** | **1.0** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:28 | 1 |
| **TOC Result 2 (SW846 9060A)** | **0.93** | **J** | 1.0 | 0.44 | mg/L | | | 09/22/23 00:28 | 1 |
| **TOC Result 3 (SW846 9060A)** | **0.98** | **J** | 1.0 | 0.44 | mg/L | | | 09/22/23 00:28 | 1 |
| **TOC Result 4 (SW846 9060A)** | **0.94** | **J** | 1.0 | 0.44 | mg/L | | | 09/22/23 00:28 | 1 |
| **Total Organic Carbon (SW846 9060A)** | **0.96** | **J** | 1.0 | 0.44 | mg/L | | | 09/22/23 00:28 | 1 |

## Client Sample ID: DN-13/091523/
**Lab Sample ID: 240-191870-18**
**Date Collected: 09/15/23 15:35**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 06:45 | 1 |
| **1,1-Dichloroethane** | **0.99** | **J** | 1.0 | 0.47 | ug/L | | | 09/23/23 06:45 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 06:45 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 06:45 | 1 |
| **cis-1,2-Dichloroethene** | **4.3** | | 1.0 | 0.46 | ug/L | | | 09/23/23 06:45 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 06:45 | 1 |
| **Tetrachloroethene** | **1.5** | | 1.0 | 0.44 | ug/L | | | 09/23/23 06:45 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 06:45 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 06:45 | 1 |
| **Trichloroethene** | **4.7** | | 1.0 | 0.44 | ug/L | | | 09/23/23 06:45 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 06:45 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 06:45 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *62 - 137* | | *09/23/23 06:45* | *1* |
| *4-Bromofluorobenzene (Surr)* | *95* | | *56 - 136* | | *09/23/23 06:45* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/23/23 06:45* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/23/23 06:45* | *1* |

## Client Sample ID: DUP-02/091523/
**Lab Sample ID: 240-191870-19**
**Date Collected: 09/15/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 07:10 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 07:10 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 07:10 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 07:10 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 07:10 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 07:10 | 1 |
| **Tetrachloroethene** | **35** | | 1.0 | 0.44 | ug/L | | | 09/23/23 07:10 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 07:10 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 07:10 | 1 |
| **Trichloroethene** | **2.0** | | 1.0 | 0.44 | ug/L | | | 09/23/23 07:10 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 07:10 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 07:10 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *62 - 137* | | *09/23/23 07:10* | *1* |
| *4-Bromofluorobenzene (Surr)* | *93* | | *56 - 136* | | *09/23/23 07:10* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/23/23 07:10* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 07:10* | *1* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **TOC Result 1 (SW846 9060A)** | **1.0** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:53 | 1 |
| **TOC Result 2 (SW846 9060A)** | **0.96** | **J** | 1.0 | 0.44 | mg/L | | | 09/22/23 00:53 | 1 |
| **TOC Result 3 (SW846 9060A)** | **1.0** | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:53 | 1 |
| **TOC Result 4 (SW846 9060A)** | **0.99** | **J** | 1.0 | 0.44 | mg/L | | | 09/22/23 00:53 | 1 |

## Client Sample ID: DUP-02/091523/
**Lab Sample ID: 240-191870-19**
**Date Collected: 09/15/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### General Chemistry (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Organic Carbon (SW846 9060A) | 1.0 | | 1.0 | 0.44 | mg/L | | | 09/22/23 00:53 | 1 |

## Client Sample ID: EB-05/091523/
**Lab Sample ID: 240-191870-20**
**Date Collected: 09/15/23 15:45**
**Matrix: Water**
**Date Received: 09/16/23 17:17**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/23/23 07:35 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/23/23 07:35 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/23/23 07:35 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 07:35 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/23/23 07:35 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/23/23 07:35 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 07:35 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 07:35 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/23/23 07:35 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/23/23 07:35 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/23/23 07:35 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/23/23 07:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/23/23 07:35* | *1* |
| *4-Bromofluorobenzene (Surr)* | *94* | | *56 - 136* | | *09/23/23 07:35* | *1* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/23/23 07:35* | *1* |
| *Dibromofluoromethane (Surr)* | *98* | | *73 - 120* | | *09/23/23 07:35* | *1* |

Pace® Location Requested (City/State):
Pace Analytical Baton Rouge
7979 Innovation Park Dr, Suite A
Baton Rouge, LA 70820

# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY - Affix Workorder/Login Label Here

WO# : 20289620

20289620

| | | | |
|---|---|---|---|
| Company Name: | ARCADIS-COLUMBUS, OH | Contact/Report To: | Eldridge, Kari |
| Street Address: | 4665 Cornell Road, Suite 200<br>Cincinnati, OH 45241 | Phone #: | NONE |
| | | E-Mail: | kari.eldridge@arcadis.com |
| | | Cc E-Mail: | |
| Customer Project #: | | Invoice To: | |
| Project Name: | 30173252.0004B Racer Morraine | Invoice E-Mail: | |
| Site Collection Info/Facility ID (as applicable): | Racer Morraine OH | Purchase Order # (if applicable): | |
| | | Quote #: | |
| Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [X] ET | | County / State origin of sample(s): | Ohio |

Data Deliverables:
[ ] Level II [ ] Level III [X] Level IV
[ ] EQUIS
[ ] Other_____

Regulatory Program (DW, RCRA, etc.) as applicable:

Rush (Pre-approval required):
[ ] 2 Day [ ] 3 day [ ] 5 day [ ] Other_____
Date Results Requested:

DW PWSID # or WW Permit # as applicable:

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only
Proj. Mgr: Mellssa MacNaughton
AcctNum / Client ID:
Table #:
Profile / Template: 18793
Prelog / Bottle Ord. ID: 1144454

Preservation non-conformance identified for sample:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Other (OT), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res. Cl2 | Number & Type of Containers Plastic | Number & Type of Containers Glass | Methane, Ethane, and Ethene by RSK 175 | Sample Comment |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GM-32/091523/ | W | G | 9.15.23 | 0955 | | | | | 3 | X | 1 |
| GM-21/091523/ | W | G | 9.15.23 | 1140 | | | | | 3 | X | 2 |
| ~~GM-195~~ LH | | | | | | | | | | | |
| GM-195/091523/ | W | G | 9.15.23 | 1310 | | | | | 3 | X | 3 |
| GM-2/091523/ | W | G | 9.15.23 | 1450 | | | | | 3 | X | 4 |
| DUP-02/091523/ | W | G | 9.15.23 | ← | | | | | 3 | X | 5 |

Customer Remarks / Special Conditions / Possible Hazards:

Collected By:
Printed Name: Luke Holzer
Signature: Luke Holzer

Additional Instructions from Pace®:

| # Coolers: | Thermometer ID: | Correction Factor (°C): | Obs. Temp. (°C) | Corrected Temp. (°C) |
|---|---|---|---|---|
| | | | | |

| | | | | |
|---|---|---|---|---|
| Relinquished by/Company: (Signature) | Luke Holzer/Arcadis | Date/Time: 9/15/23 1800 | Received by/Company: (Signature) | Date/Time: |
| Relinquished by/Company: (Signature) | Fed Ex | Date/Time: 9/16/23 950 | Received by/Company: (Signature) | Date/Time: 9/16/23 950 |
| Relinquished by/Company: (Signature) | | Date/Time: | Received by/Company: (Signature) | Date/Time: |
| Relinquished by/Company: (Signature) | | Date/Time: | Received by/Company: (Signature) | Date/Time: |

Tracking Number:

Delivered by: [ ] In- Person [ ] Courier
[ ] FedEX [ ] UPS [ ] Other



Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

# WO#: 20289620

v02

Pace

## Sample Condition l

PM: RW Due Date: 09/27/23

CLIENT: BR-ARCAD COL

7979 Innovation Park Dr. Baton Rouge, LA 70806

Cooler Inspected by/date: BRP / 9/16/23

**Means of receipt:** ☐ Pace ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____

| | | | |
|---|---|---|---|
| ☑ Yes | ☐ No | | Were custody seals present on the cooler? |
| ☑ Yes | ☐ No | ☐ NA | If custody seals were present, were they intact and unbroken? |

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: E43 IR Gun Correction Factor: 0 °C

| | | | |
|---|---|---|---|
| Cooler #1 | Cooler Temp °C: 1.6 | (Actual/True) | Samples on ice ☑ Yes ☐ No; pH Strip Lot # |
| Cooler #2 | Cooler Temp °C: _____ | (Actual/True) | |
| Cooler #3 | Cooler Temp °C: _____ | (Actual/True) | Method of coolant: ☑ Wet ☐ Ice Packs ☐ Dry Ice ☐ None |
| Cooler #4 | Cooler Temp °C: _____ | (Actual/True) | |

**Tracking #:** 6862 7287 8999

| | | | | |
|---|---|---|---|---|
| ☐ Yes | ☑ No | ☐ NA | Is a temperature blank present? | |
| ☑ Yes | ☐ No | ☐ NA | Was a chain of custody (COC) recieved? | |
| ☐ Yes | ☑ No | ☐ NA | Was the line and profile number listed on the COC? | |
| ☑ Yes | ☐ No | ☐ NA | Were all coolers received at or below 6.0°C? If no, notify Project Manager notified via email. | |
| ☑ Yes | ☐ No | | Were proper custody procedures (relinquished/received) followed? | |
| ☑ Yes | ☐ No | ☐ NA | Is the sampler name and signature on the COC? | |
| ☑ Yes | ☐ No | | Were sample IDs listed on the COC and all sample containers? | |
| ☑ Yes | ☐ No | | Was collection date & time listed on the COC and all sample containers? | |
| ☑ Yes | ☐ No | | Did all container label information (ID, date, time) agree with the COC? | |
| ☑ Yes | ☐ No | | Were tests to be performed listed on the COC? | |
| ☑ Yes | ☐ No | | Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? | |
| ☑ Yes | ☐ No | | Was adequate sample volume available? | |
| ☑ Yes | ☐ No | | Were all samples received within ½ the holding time or 48 hours, whichever comes first? | |
| ☑ Yes | ☐ No | | Were all samples containers accounted for? (No missing / excess) | |
| ☑ Yes | ☐ No | ☐ NA | Were VOA, 8015C (GRO/VPH), and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials? | |
| ☐ Yes | ☐ No | ☑ NA | Trip blank present? | |
| ☐ Yes | ☐ No | ☑ NA | Filtered volume received for dissolved tests? *If no, list affected sample(s) in comments below.* | |
| ☐ Yes | ☐ No | ☑ NA | Were all metals/nutrient samples received at a pH of < 2? | If No, was preservative added? ☐ Yes ☐ No<br>If added, record lots. Dispenser/pipette lot #: _____ |
| ☐ Yes | ☐ No | ☑ NA | Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9? | $HNO_3$_____ $H_2SO_4$ _____ NaOH_____<br>Date: _____ Time:_____ |

**Comments:**

**Pace Analytical Services, LLC**
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

## ANALYTICAL RESULTS

Project: Racer Trust 30173252.0004B
Pace Project No.: 20289620

**Sample: GM-32/091523/** **Lab ID: 20289620001** Collected: 09/15/23 09:55 Received: 09/16/23 09:50 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **BR RSK175 Headspace** | Analytical Method: RSK175 | | | | | | | |
| | Pace Analytical Services - Baton Rouge | | | | | | | |
| Ethane | ND | ug/L | 5.0 | 1 | | 09/20/23 16:15 | 74-84-0 | |
| Ethene | ND | ug/L | 5.0 | 1 | | 09/20/23 16:15 | 74-85-1 | |
| Methane | **51.8** | ug/L | 10.0 | 1 | | 09/20/23 16:15 | 74-82-8 | |
| ***Surrogates*** | | | | | | | | |
| Methyl-tert-butyl-ether-d3 (S) | 106 | %. | 70-130 | 1 | | 09/20/23 16:15 | | |

**Sample: GM-21/091523/** **Lab ID: 20289620002** Collected: 09/15/23 11:40 Received: 09/16/23 09:50 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **BR RSK175 Headspace** | Analytical Method: RSK175 | | | | | | | |
| | Pace Analytical Services - Baton Rouge | | | | | | | |
| Ethane | ND | ug/L | 5.0 | 1 | | 09/20/23 16:31 | 74-84-0 | |
| Ethene | ND | ug/L | 5.0 | 1 | | 09/20/23 16:31 | 74-85-1 | |
| Methane | **5160** | ug/L | 10.0 | 1 | | 09/20/23 16:31 | 74-82-8 | |
| ***Surrogates*** | | | | | | | | |
| Methyl-tert-butyl-ether-d3 (S) | 109 | %. | 70-130 | 1 | | 09/20/23 16:31 | | |

**Sample: GM-19S/091523/** **Lab ID: 20289620003** Collected: 09/15/23 13:10 Received: 09/16/23 09:50 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **BR RSK175 Headspace** | Analytical Method: RSK175 | | | | | | | |
| | Pace Analytical Services - Baton Rouge | | | | | | | |
| Ethane | ND | ug/L | 5.0 | 1 | | 09/20/23 16:47 | 74-84-0 | |
| Ethene | ND | ug/L | 5.0 | 1 | | 09/20/23 16:47 | 74-85-1 | |
| Methane | **61.8** | ug/L | 10.0 | 1 | | 09/20/23 16:47 | 74-82-8 | |
| ***Surrogates*** | | | | | | | | |
| Methyl-tert-butyl-ether-d3 (S) | 111 | %. | 70-130 | 1 | | 09/20/23 16:47 | | |

**Sample: GM-2/091523/** **Lab ID: 20289620004** Collected: 09/15/23 14:50 Received: 09/16/23 09:50 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **BR RSK175 Headspace** | Analytical Method: RSK175 | | | | | | | |
| | Pace Analytical Services - Baton Rouge | | | | | | | |
| Ethane | ND | ug/L | 5.0 | 1 | | 09/20/23 17:03 | 74-84-0 | |
| Ethene | ND | ug/L | 5.0 | 1 | | 09/20/23 17:03 | 74-85-1 | |
| Methane | ND | ug/L | 10.0 | 1 | | 09/20/23 17:03 | 74-82-8 | |
| ***Surrogates*** | | | | | | | | |
| Methyl-tert-butyl-ether-d3 (S) | 104 | %. | 70-130 | 1 | | 09/20/23 17:03 | | |

## REPORT OF LABORATORY ANALYSIS

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**Pace Analytical Services, LLC**
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

## ANALYTICAL RESULTS

Project: Racer Trust 30173252.0004B
Pace Project No.: 20289620

**Sample: DUP-02/091523/** **Lab ID: 20289620005** Collected: 09/15/23 00:01 Received: 09/16/23 09:50 Matrix: Water

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **BR RSK175 Headspace** | Analytical Method: RSK175<br>Pace Analytical Services - Baton Rouge | | | | | | | |
| Ethane | ND | ug/L | 5.0 | 1 | | 09/20/23 17:19 | 74-84-0 | |
| Ethene | ND | ug/L | 5.0 | 1 | | 09/20/23 17:19 | 74-85-1 | |
| Methane | ND | ug/L | 10.0 | 1 | | 09/20/23 17:19 | 74-82-8 | |
| ***Surrogates*** | | | | | | | | |
| Methyl-tert-butyl-ether-d3 (S) | 88 | %. | 70-130 | 1 | | 09/20/23 17:19 | | |

## REPORT OF LABORATORY ANALYSIS

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# Attachment A-4

## Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2023

**Attachment A-4**
**Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| MCL | | 200 | | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| **North Settling Lagoon Monitoring Wells** | | | | | | | | | | | | | |
| HR-4 | 9/14/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/20/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/18/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.55 J | 0.71 J | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/16/2004 | < 1.0 U | 0.77 J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.3 | 0.50 J | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.39 J | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2006 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | 0.41 J | 0.34 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2007 | < 1.0 U | 3.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/30/2008 | < 1.0 U | 4.1 | < 1.0 U | < 1.0 U | 0.23 J | < 1.0 U | 0.44 J | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/13/2009 | < 1.0 U | 5.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.37 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2010 | < 1.0 U | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.34 J | 0.28 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 4.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/7/2012 | 0.23 J | 5 | < 1.0 U | < 1.0 U | 0.35 J | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/27/2013 | 0.29 J | 3.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.21 J | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 0.71 J | 2.0 | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | 0.28 J | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | 1.2 | 1.6 | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | < 1.0 U | 0.33 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/19/2016 | 2 | 1.6 | < 1.0 U | < 1.0 U | 0.42 J | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/16/2017 | 1.9 | 2.1 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/24/2018 | 1.6 | 1.6 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | 0.16 J | 0.29 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 2.2 | 1.7 | 0.19 J | < 1.0 U | 0.56 J | < 1.0 U | 0.22 J | 0.29 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 1.9 | 1.3 | < 1.0 U | < 1.0 U | 0.42 J | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | 1.9 | 1.9 | < 1.0 U | < 1.0 U | 0.71 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | 1.7 | 1.5 | < 1.0 U | < 1.0 U | 0.58 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/11/2023 | 2.0 | 1.5 | < 1.0 U | < 1.0 U | 0.73 J | < 1.0 U | < 1.0 U | 0.44 J | < 1.0 U | < 1.0 U | < 1.0 UJ | < 2.0 U |
| W-2-N | 9/14/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/19/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/6/2001 | 0.48 J | 0.33 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/19/2002 | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/16/2004 | 0.30 J | 0.36 J | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | 0.31 J | 1.4 | < 1.0 U | 0.20 J | < 1.0 U | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 0.28 J | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 0.91 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/22/2006 | 0.25 J | 0.29 J | < 1.0 UJ | < 1.0 U | 1.4 J | < 1.0 UJ | < 1.0 UJ | 1 J | < 1.0 UJ | 0.18 J | < 1.0 UJ | < 2.0 UJ |
| | 9/25/2007 | < 1.0 U | 0.22 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 0.88 J | 0.28 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 0.47 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/13/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 0.37 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/6/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.89 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 0.20 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | 0.25 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/15/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.8 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/15/2017 | 0.28 J | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/24/2018 | 0.38 J | 0.31 J | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | 0.28 J | < 1.0 U | < 2.0 U |
| | 7/9/2019 | < 1.0 U | 0.19 J | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.22 J | < 1.0 U | < 2.0 U |
| | 7/29/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 0.79 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 0.91 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/11/2023 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 0.55 J | < 1.0 U | < 1.0 U | < 1.0 UJ | < 2.0 U |

**Attachment A-4**
**Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| MCL | | 200 | | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| W-3-N | 9/17/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **291** | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | 2.6 | **13** | < 1.0 U |
| | 9/19/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **282** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.9 | **24** | < 1.0 U |
| | 11/7/2001 | < 5.6 U | < 5.6 U | < 5.6 U | < 5.6 U | **160** | < 5.6 U | **9.0** | 2.1 J | < 5.6 U | 2.2 J | **7.6** | < 5.6 U |
| | 9/23/2002 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | **150** | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | < 3.3 U | **6.5 J** | < 6.7 U |
| | 9/17/2003 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **100** | < 4.0 U | **5.1** | 1.7 J | < 4.0 U | 1.6 J | **6.6** | < 4.0 U |
| | 9/16/2004 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **120** | < 4.0 U | 0.94 J | < 4.0 U | < 4.0 U | 1.6 J | **6.1** | < 4.0 U |
| | 10/20/2005 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **84** | < 4.0 U | 1.4 J | < 4.0 U | < 4.0 U | 1.0 J | **8.0** | < 8.0 U |
| | 9/25/2006 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **140** | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | 1.9 J | **9.6** | < 1.0 U |
| | 9/26/2007 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **110** | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | 1.4 J | **5.6** | < 8.0 U |
| | 9/29/2008 | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | **98** | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | 1.4 J | **3.8** | < 6.7 U |
| | 11/13/2009 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **72** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 0.99 J | **3.2** | < 4.0 U |
| | 9/24/2010 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 56 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 0.79 J | **2.4** | < 4.0 U |
| | 9/28/2011 | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | 53 | < 2.5 U | 0.94 J | < 2.5 U | < 2.5 U | 0.80 J | **2.7** | < 5.0 U |
| | 9/6/2012 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 41 | < 2.0 U | 0.60 J | < 2.0 U | < 2.0 U | 0.79 J | 1.4 J | < 4.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 34 | < 1.0 U | 0.96 J | < 1.0 U | < 1.0 U | 0.64 J | 1.6 | < 2.0 U |
| | 10/7/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 31 | < 1.0 U | 0.52 J | < 1.0 U | < 1.0 U | 0.47 J | 1.0 | < 2.0 U |
| | 11/4/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 29 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.42 J | 1.3 | < 2.0 U |
| | 8/19/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 22 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.34 J | 1.9 | < 2.0 U |
| | 8/15/2017 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 24 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.38 J | 1.4 | < 2.0 U |
| | 7/24/2018 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 16 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | 1.1 | < 2.0 U |
| | 7/9/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 14 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.23 J | 0.81 J | < 2.0 U |
| | 7/29/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.88 J | < 2.0 U |
| | 10/4/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 2.0 U |
| | 11/9/2022 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 9.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.76 J | < 2.0 U |
| | 9/11/2023 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.71 J- | < 2.0 U |
| W-4-N | 9/17/1999 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | 2.1 | **9.8** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/19/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | **7.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/7/2001 | 0.33 J | 0.89 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | 0.92 J | **7.1** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/24/2002 | 0.44 J | 1.7 | < 1.0 U | < 1.0 U | 5.2 | < 1.0 U | 0.94 J | **8.5** | < 1.0 U | 0.33 J | 0.77 J | < 1.0 U |
| | 9/17/2003 | 0.26 J | 0.94 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | 1.1 | **8.1** | < 1.0 U | < 0.50 U | 0.48 J | < 1.0 U |
| | 9/16/2004 | 0.40 J | 1.7 | < 1.0 U | < 1.0 U | 5.8 | < 1.0 U | 1.7 | **12** | < 1.0 U | 0.38 J | 0.49 J | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | 1.0 | **7.2** | < 1.0 U | < 1.0 U | 0.54 J | < 2.0 U |
| | 9/25/2006 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | 0.96 J | **7.6** | < 1.0 U | 0.19 J | 0.56 J | < 2.0 U |
| | 9/26/2007 | 0.34 J | 1.6 | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | 0.88 J | **10** | < 1.0 U | 0.24 J | 0.96 J | < 2.0 U |
| | 9/29/2008 | 0.39 J | 1.9 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.38 J | **8.4** | < 1.0 U | 0.92 J | 0.34 J | < 2.0 U |
| | 11/13/2009 | 0.47 J | 1.6 | < 1.0 U | < 1.0 U | 5.7 | < 1.0 U | 0.68 J | **15** | < 1.0 U | 0.39 J | 0.25 J | < 2.0 U |
| | 9/24/2010 | 0.41 J | 2.1 | < 1.0 U | < 1.0 U | 7.9 | < 1.0 U | 0.67 J | **13** | < 1.0 U | 0.51 J | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 9.7 | < 1.0 U | 1.1 | **9.9** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 9/7/2012 | < 1.0 U | 5.6 | < 1.0 U | < 1.0 U | 14 | < 1.0 U | 0.52 J | **6.3** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 9/27/2013 | < 1.0 U | 7.1 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.63 J | **7.4** | < 1.0 U | 0.76 J | 0.18 J | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 5.7 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.49 J | **9.2** | < 1.0 U | 0.69 J | < 1.0 U | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 4.2 | < 1.0 U | < 1.0 U | 7.0 | < 1.0 U | < 1.0 U | **12** | < 1.0 U | 0.51 J | < 1.0 U | < 2.0 U |
| | 8/19/2016 | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | 9.5 | < 1.0 U | < 1.0 U | **10** | < 1.0 U | 0.63 J | < 1.0 U | < 2.0 U |
| | 8/16/2017 | < 1.0 U | 6.5 | < 1.0 U | < 1.0 U | 9.2 | < 1.0 U | 0.38 J | **8.8** | < 1.0 U | 0.64 J | < 1.0 U | < 2.0 U |
| | 7/24/2018 | < 1.0 U | 6.9 | < 1.0 U | < 1.0 U | 8.7 | < 1.0 U | 0.26 J | **6.1** | < 1.0 U | 1.3 | < 1.0 U | < 2.0 U |
| | 7/9/2019 | < 1.0 U | 7.6 | < 1.0 U | < 1.0 U | 6.6 | < 1.0 U | 0.72 J | **9.2** | < 1.0 U | 0.88 J | < 1.0 U | < 2.0 U |
| | 7/29/2020 | < 1.0 U | 7.3 | < 1.0 U | < 1.0 U | 8.2 | < 1.0 U | 0.81 J | **6.9** | < 1.0 U | 0.55 J | < 1.0 U | < 2.0 U |
| | 10/4/2021 | < 1.0 U | 9.0 | < 1.0 U | < 1.0 U | 8.9 | < 1.0 U | < 1.0 U | **7.0** | < 1.0 U | 0.60 J | < 1.0 U | < 2.0 U |
| | 11/9/2022 | < 1.0 U | 6.3 | < 1.0 U | < 1.0 U | 4.8 | < 1.0 U | 1.4 | **9.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/11/2023 | < 1.0 U | 7.5 | < 1.0 U | < 1.0 U | 6.9 | < 1.0 U | 0.55 J | **8.7** | < 1.0 U | 1.1 | < 1.0 UJ | < 2.0 U |

**Attachment A-4**
**Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| MCL | | 200 | | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| **South Settling Lagoon Monitoring Wells** | | | | | | | | | | | | | |
| HR-17 | 9/23/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 6.2 | < 1.0 U | **16** | **7.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/28/2000 | 1.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.7 | 4.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 3.3 | 4.2 B | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 0.39 J | 1.5 | < 1.0 U | < 1.0 U | 5.1 | < 1.0 U | **22** | **12** | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U |
| | 9/25/2003 | < 2.0 U | 0.75 J | < 2.0 U | < 2.0 U | 2.2 | < 2.0 U | **64** | **10** | < 2.0 U | 0.7 J | < 2.0 U | < 2.0 U |
| | 9/17/2004 | < 5.0 U | 2.0 J | < 5.0 U | < 5.0 U | 7.1 | < 5.0 U | **82** | **18** | < 5.0 U | 1.6 J | < 5.0 U | < 5.0 U |
| | 10/19/2005 | < 1.0 U | 0.70 J | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | **45** | **8.3** | < 1.0 U | 0.57 J | < 1.0 U | < 3.7 U |
| | 9/18/2006 | < 1.0 U | 0.6 J | < 1.0 U | < 1.0 U | 4.6 | < 1.0 U | **34** | **5.6** | < 1.0 U | 0.46 J | < 1.0 U | < 2.0 U |
| | 9/25/2007 | < 2.5 U | 1.2 J | < 2.5 U | < 2.5 U | 1.9 J | < 2.5 U | **51** | **16** | < 2.5 U | 0.69 J | < 2.5 U | < 5.0 U |
| | 9/26/2008 | < 4.0 U | 1.1 J | < 4.0 U | < 4.0 U | 2.7 J | < 4.0 U | **120** | **31** | < 4.0 U | 1.0 J | < 4.0 U | < 8.0 U |
| | 11/12/2009 | < 2.5 U | 1.7 J | < 2.5 U | < 2.5 U | 1.9 J | < 2.5 U | **85** | **21** | < 2.5 U | 1.3 J | < 2.5 U | < 5.0 U |
| | 9/23/2010 | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | **60** | **18** | < 1.0 U | 1.2 J | < 1.0 U | < 3.3 U |
| | 9/29/2011 | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | **110** | **57** | < 5.7 U | < 5.7 U | < 5.7 U | < 1.0 U |
| | 9/6/2012 | < 9.1 U | < 9.1 U | < 9.1 U | < 9.1 U | 2.4 J | < 9.1 U | **140** | **75** | < 9.1 U | < 9.1 U | < 9.1 U | < 1.0 U |
| | 9/25/2013 | 1.3 | 0.93 J | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | **150** | **100** | < 1.0 U | 0.92 J | < 1.0 U | < 2.0 U |
| | 10/7/2014 | < 5.0 U | 2.0 J | < 5.0 U | < 5.0 U | 2.2 J | < 5.0 U | **170** | **160** | < 5.0 U | < 5.0 U | < 5.0 U | < 1.0 U |
| | 11/4/2015 | 1.5 | 0.61 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **150** | **160** | < 1.0 U | 0.73 J | < 1.0 U | < 2.0 U |
| | 8/25/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **170** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/17/2017 | 0.80 J | 0.60 J | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | **150** | **24** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 4.8 | 2.2 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **180** | 0.92 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 7.4 | 1.6 | 0.54 J | < 1.0 U | 1.2 | < 1.0 U | **150** | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 3.6 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **160** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/4/2021 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **130** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 11/9/2022 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **160** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 9/12/2023 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **200** | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| W-2-S | 9/23/1999 | 1.9 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/27/2000 | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 5.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 1.7 | 0.58 J | < 1.0 U | < 1.0 U | 0.49 J | < 1.0 U | < 1.0 U | **5.2 B** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 1.5 | 0.98 J | < 1.0 U | < 1.0 U | 0.90 | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/26/2003 | 1.4 | 0.99 J | < 1.0 U | < 1.0 U | 0.74 | < 1.0 U | < 1.0 U | **5.5** | 0.25 J | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/17/2004 | 1.5 | 1.3 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.55 J | **6.0** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/19/2005 | 1.6 | 1.2 | < 1.0 U | < 1.0 U | 0.78 J | < 1.0 U | 0.36 J | **5.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/18/2006 | 1.8 | 1.2 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | **5.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2007 | 1.4 | 1.1 | < 1.0 U | < 1.0 U | 0.89 J | < 1.0 U | < 1.0 U | **5.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2008 | 1.4 | 0.92 J | < 1.0 U | < 1.0 U | 0.78 J | < 1.0 U | < 1.0 U | **5.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 1.7 | 1.2 | < 1.0 U | 0.43 J | 0.90 J | < 1.0 UJ | 0.35 J | **6.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2010 | 1.4 | 1.1 | < 1.0 U | < 1.0 U | 0.82 J | < 1.0 U | 0.33 J | **5.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2011 | 1.6 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.44 J | **7.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/6/2012 | 1.6 | 1.1 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.35 J | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 1.8 | 0.86 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.31 J | **6.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 0.79 J | 0.80 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | 0.33 J | 5.0 | < 1.0 U | 0.34 J | < 1.0 U | < 2.0 U |
| | 11/5/2015 | < 1.0 U | 0.63 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.36 J | **23** | < 1.0 U | 0.47 J | < 1.0 U | < 2.0 U |
| | 8/23/2016 | 1.4 | 1.0 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | 0.34 J | **6.6** | < 1.0 U | 0.30 J | < 1.0 U | < 2.0 U |
| | 8/16/2017 | 1.3 | 1.1 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | **5.9** | < 1.0 U | 0.40 J | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 0.98 J | 0.83 J | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | 2.0 | 4.6 | < 1.0 U | 0.32 J | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 0.60 J | 0.23 J | < 1.0 U | < 1.0 U | 0.29 J | < 1.0 U | **20** | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 0.85 J | 0.60 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **6.3** | 3.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | 1.0 | 0.79 J | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | 1.0 | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | 0.59 J | 0.60 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **28** | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/12/2023 | 0.70 J | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **12** | **6.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Attachment A-4**
**Groundwater VOC Analytical Results for North and South Settling Lagoon Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| MCL | | 200 | | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| W-3-S | 9/23/1999 | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | 2.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/28/2000 | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.44 J | 1.5 B | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.61 J | 2.4 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/26/2003 | 1.8 | < 1.0 U | < 1.0 U | < 1.0 U | 0.34 J | < 1.0 U | 0.81 J | 2.0 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/17/2004 | 2.4 | 0.21 J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.2 | 2.9 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/19/2005 | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.0 | 2.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/18/2006 | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.60 J | 3.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2007 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.72 J | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2008 | 1.2 | 0.21 J | < 1.0 U | < 1.0 U | 0.52 J | < 1.0 U | 1.3 | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | < 1.0 UJ | 0.87 J | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/23/2010 | 0.87 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.95 J | 2.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2011 | 0.51 J | 0.38 J | < 1.0 U | < 1.0 U | 0.72 J | < 1.0 U | 2.8 | 2.6 | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 9/6/2012 | 0.60 J | 0.89 J | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | 4.4 | **5.7** | < 1.0 U | 0.49 J | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.49 J | 1.2 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | **25** | **21** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 0.76 J | 0.96 J | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | **38** | **35** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 0.41 J | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | **65** | **97** | < 1.0 U | 0.31 J | < 1.0 U | < 2.0 U |
| | 8/23/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 2.1 | < 2.0 U | **62** | **11** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/16/2017 | 0.62 J | 0.66 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | **68** | **7.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 0.87 J | 0.61 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **19** | **27** | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 2.5 | 0.83 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **81** | **5.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 1.6 | 0.48 J | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | **110** | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 4.6 | < 2.0 U | **92** | 1.6 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 11/9/2022 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **130** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 9/12/2023 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **150** | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| W-4-S | 9/23/1999 | 3.3 | 1.2 | < 1.0 U | < 1.0 U | 4.4 | < 1.0 U | **31 J** | **15 J** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/28/2000 | 3.0 | 1.0 | < 1.0 U | < 1.0 U | 4.0 | < 1.0 U | **15** | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 2.9 | 1.1 | < 1.0 U | < 1.0 U | 3.3 | < 1.0 U | **13** | **8.9 B** | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 2.3 | 0.87 J | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | **17** | **9.8** | < 1.0 U | 0.60 | < 1.0 U | < 1.0 U |
| | 9/26/2003 | 2.0 | 0.92 J | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | **24** | **13** | 0.25 J | 0.78 | < 1.0 U | < 1.0 U |
| | 9/17/2004 | 2.3 | 1.2 | < 1.0 U | < 1.0 U | 4.4 | < 1.0 U | **18** | **13** | < 1.0 U | 0.97 | < 1.0 U | < 1.0 U |
| | 10/19/2005 | 2.4 | 1.4 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | **20** | **13** | < 1.0 U | 1.1 | < 1.0 U | < 2.0 U |
| | 9/19/2006 | 1.7 | 1.3 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | **18** | **12** | < 1.0 U | 1.0 | < 1.0 U | < 2.0 U |
| | 9/24/2007 | 1.5 | 1.8 | < 1.0 U | < 1.0 U | 5.9 | < 1.0 U | **26** | **16** | < 1.0 U | 1.3 | < 1.0 U | < 2.0 U |
| | 9/26/2008 | 0.95 J | 1.3 | 0.21 J | < 1.0 U | 6 | < 1.0 U | **32** | **16** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 1.3 | 1.6 | < 1.0 U | < 1.0 U | 9.1 | < 1.0 U | **39** | **23** | < 1.0 U | 1.5 | < 1.0 U | < 2.0 U |
| | 9/23/2010 | 1.1 | 1.6 | < 1.0 U | < 1.0 U | 9.1 | < 1.0 U | **31** | **20** | < 1.0 U | 1.5 | < 1.0 U | < 2.0 U |
| | 9/29/2011 | 1.1 | 1.5 | < 1.0 U | < 1.0 U | 8.9 | < 1.0 U | **31** | **21** | < 1.0 U | 1.4 | < 1.0 U | < 2.0 U |
| | 9/6/2012 | 1.0 J | 1.6 J | < 1.0 U | < 1.0 U | 9.4 | < 1.0 U | **26** | **21** | < 1.0 U | 1.4 J | < 1.0 U | < 3.3 U |
| | 9/25/2013 | 1.6 | 1.9 | < 1.0 U | < 1.0 U | 6.3 | < 1.0 U | **60** | **50** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 1.4 J | 1.3 J | < 2.5 U | < 2.5 U | 6.1 | < 2.5 U | **65** | **63** | < 2.5 U | 1.1 J | < 2.5 U | < 5.0 U |
| | 11/4/2015 | 1.9 J | 2.3 | < 2.0 U | < 2.0 U | 9.7 | < 2.0 U | **74** | **72** | < 2.0 U | 1.4 J | < 2.0 U | < 4.0 U |
| | 8/23/2016 | 1.6 J | 1.7 J | < 2.0 U | < 2.0 U | 12 | < 2.0 U | **54** | **45** | < 2.0 U | 1.1 J | < 2.0 U | < 4.0 U |
| | 8/16/2017 | 1.5 | 2.7 | < 1.0 U | < 1.0 U | 22 | < 1.0 U | **39** | **40** | < 1.0 U | 2.1 | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 1.8 | 2.1 | < 1.0 U | < 1.0 U | 17 | < 1.0 U | **68** | **42** | < 1.0 U | 1.5 | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 1.7 | 1.6 | < 1.0 U | < 1.0 U | 13 | < 1.0 U | **70** | **33** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 0.71 J | < 2.0 U | < 2.0 U | < 2.0 U | 1.0 J | < 2.0 U | **37** | **9.1** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/4/2021 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **29** | 3.5 | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 11/9/2022 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **26** | 0.92 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/12/2023 | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **22** | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

## Notes

µg/L - Micrograms per Liter.
< - Constituent not detected above laboratory reporting limit shown.
**BOLD** - Result above MCL.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) idicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
B - Compound was found in the blank and sample.
U - Constituent not detected above laboratory reporting limit shown.
UJ - The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
cis-1,2-DCE - cis-1,1-Dichloroethene.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.

# Attachment A-5

## Laboratory Analytical Reports

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Carolyn Grogan
ARCADIS US Inc
7575 Huntington Park Drive
Suite 130
Columbus OH 43235

Generated 02/07/2024 Revision 1

## JOB DESCRIPTION

Racer Moraine Annual

## JOB NUMBER

240-191865-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.



my EOL

# Eurofins Cleveland

## Job Notes

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## Authorization

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02/07/2024
Revision 1

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## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

**Job Narrative**
**240-191865-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 9/16/2023 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

**GC/MS VOA**
Method 8260D: The continuing calibration verification (CCV) analyzed in batch 587660 was outside the method criteria for the following analyte: Vinyl chloride. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

## Client Sample ID: HR-4/091123/ — Lab Sample ID: 240-191865-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 2.0 | | 1.0 | 0.48 | ug/L | 1 | | 8260D | Total/NA |
| 1,1-Dichloroethane | 1.5 | | 1.0 | 0.47 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 0.73 | J | 1.0 | 0.46 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.44 | J | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: W-2-N/091123/ — Lab Sample ID: 240-191865-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 1.7 | | 1.0 | 0.46 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 0.55 | J | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: W-3-N/091123/ — Lab Sample ID: 240-191865-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 13 | | 1.0 | 0.46 | ug/L | 1 | | 8260D | Total/NA |
| Vinyl chloride | 0.71 | J | 1.0 | 0.45 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: W-4-N/091123/ — Lab Sample ID: 240-191865-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 7.5 | | 1.0 | 0.47 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 6.9 | | 1.0 | 0.46 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 0.55 | J | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |
| trans-1,2-Dichloroethene | 1.1 | | 1.0 | 0.51 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 8.7 | | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: EB-01/091123/ — Lab Sample ID: 240-191865-5

No Detections.

## Client Sample ID: TB-01/091123/ — Lab Sample ID: 240-191865-6

No Detections.

This Detection Summary does not include radiochemical test results.

## Client Sample ID: HR-4/091123/
**Lab Sample ID: 240-191865-1**

**Date Collected: 09/11/23 12:35**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **2.0** | | 1.0 | 0.48 | ug/L | | | 09/19/23 17:53 | 1 |
| **1,1-Dichloroethane** | **1.5** | | 1.0 | 0.47 | ug/L | | | 09/19/23 17:53 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 17:53 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 17:53 | 1 |
| **cis-1,2-Dichloroethene** | **0.73** | **J** | 1.0 | 0.46 | ug/L | | | 09/19/23 17:53 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 17:53 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 17:53 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 17:53 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 17:53 | 1 |
| **Trichloroethene** | **0.44** | **J** | 1.0 | 0.44 | ug/L | | | 09/19/23 17:53 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/19/23 17:53 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 17:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 17:53* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/19/23 17:53* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/19/23 17:53* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/19/23 17:53* | *1* |

## Client Sample ID: W-2-N/091123/
**Lab Sample ID: 240-191865-2**

**Date Collected: 09/11/23 10:40**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 18:18 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 18:18 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 18:18 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:18 | 1 |
| **cis-1,2-Dichloroethene** | **1.7** | | 1.0 | 0.46 | ug/L | | | 09/19/23 18:18 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:18 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:18 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:18 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 18:18 | 1 |
| **Trichloroethene** | **0.55** | **J** | 1.0 | 0.44 | ug/L | | | 09/19/23 18:18 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/19/23 18:18 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 18:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 18:18* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/19/23 18:18* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* | | *09/19/23 18:18* | *1* |
| *Dibromofluoromethane (Surr)* | *101* | | *73 - 120* | | *09/19/23 18:18* | *1* |

## Client Sample ID: W-3-N/091123/
**Lab Sample ID: 240-191865-3**

**Date Collected: 09/11/23 16:45**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 18:43 | 1 |

## Client Sample ID: W-3-N/091123/
**Lab Sample ID: 240-191865-3**
**Date Collected: 09/11/23 16:45**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 18:43 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 18:43 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:43 | 1 |
| **cis-1,2-Dichloroethene** | **13** | | 1.0 | 0.46 | ug/L | | | 09/19/23 18:43 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 18:43 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:43 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:43 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 18:43 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 18:43 | 1 |
| **Vinyl chloride** | **0.71** | **J** | 1.0 | 0.45 | ug/L | | | 09/19/23 18:43 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 18:43 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 18:43* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/19/23 18:43* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/19/23 18:43* | *1* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* | | *09/19/23 18:43* | *1* |

## Client Sample ID: W-4-N/091123/
**Lab Sample ID: 240-191865-4**
**Date Collected: 09/11/23 14:35**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 19:07 | 1 |
| **1,1-Dichloroethane** | **7.5** | | 1.0 | 0.47 | ug/L | | | 09/19/23 19:07 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 19:07 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:07 | 1 |
| **cis-1,2-Dichloroethene** | **6.9** | | 1.0 | 0.46 | ug/L | | | 09/19/23 19:07 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:07 | 1 |
| **Tetrachloroethene** | **0.55** | **J** | 1.0 | 0.44 | ug/L | | | 09/19/23 19:07 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:07 | 1 |
| **trans-1,2-Dichloroethene** | **1.1** | | 1.0 | 0.51 | ug/L | | | 09/19/23 19:07 | 1 |
| **Trichloroethene** | **8.7** | | 1.0 | 0.44 | ug/L | | | 09/19/23 19:07 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/19/23 19:07 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 19:07 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/19/23 19:07* | *1* |
| *4-Bromofluorobenzene (Surr)* | *89* | | *56 - 136* | | *09/19/23 19:07* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/19/23 19:07* | *1* |
| *Dibromofluoromethane (Surr)* | *101* | | *73 - 120* | | *09/19/23 19:07* | *1* |

## Client Sample ID: EB-01/091123/
**Lab Sample ID: 240-191865-5**
**Date Collected: 09/11/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 19:32 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 19:32 | 1 |

## Client Sample ID: EB-01/091123/
**Lab Sample ID: 240-191865-5**
**Date Collected: 09/11/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 19:32 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:32 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/19/23 19:32 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:32 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:32 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:32 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 19:32 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:32 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/19/23 19:32 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 19:32 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *94* | | *62 - 137* | | *09/19/23 19:32* | *1* |
| *4-Bromofluorobenzene (Surr)* | *91* | | *56 - 136* | | *09/19/23 19:32* | *1* |
| *Toluene-d8 (Surr)* | *96* | | *78 - 122* | | *09/19/23 19:32* | *1* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/19/23 19:32* | *1* |

## Client Sample ID: TB-01/091123/
**Lab Sample ID: 240-191865-6**
**Date Collected: 09/11/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 19:56 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 19:56 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 19:56 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:56 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/19/23 19:56 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 19:56 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:56 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:56 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 19:56 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 19:56 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/19/23 19:56 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 19:56 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* | | *09/19/23 19:56* | *1* |
| *4-Bromofluorobenzene (Surr)* | *90* | | *56 - 136* | | *09/19/23 19:56* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/19/23 19:56* | *1* |
| *Dibromofluoromethane (Surr)* | *97* | | *73 - 120* | | *09/19/23 19:56* | *1* |

# Default Detection Limits

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

## Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | RL | MDL | Units |
|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | 0.48 | ug/L |
| 1,1-Dichloroethane | 1.0 | 0.47 | ug/L |
| 1,1-Dichloroethene | 1.0 | 0.49 | ug/L |
| Benzene | 1.0 | 0.42 | ug/L |
| cis-1,2-Dichloroethene | 1.0 | 0.46 | ug/L |
| Ethylbenzene | 1.0 | 0.42 | ug/L |
| Tetrachloroethene | 1.0 | 0.44 | ug/L |
| Toluene | 1.0 | 0.44 | ug/L |
| trans-1,2-Dichloroethene | 1.0 | 0.51 | ug/L |
| Trichloroethene | 1.0 | 0.44 | ug/L |
| Vinyl chloride | 1.0 | 0.45 | ug/L |
| Xylenes, Total | 2.0 | 0.42 | ug/L |

# Surrogate Summary

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Matrix: Water** **Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | DCA | BFB | TOL | DBFM |
| Lab Sample ID | Client Sample ID | (62-137) | (56-136) | (78-122) | (73-120) |
| 240-191865-1 | HR-4/091123/ | 93 | 92 | 94 | 100 |
| 240-191865-2 | W-2-N/091123/ | 93 | 92 | 95 | 101 |
| 240-191865-3 | W-3-N/091123/ | 93 | 92 | 94 | 99 |
| 240-191865-4 | W-4-N/091123/ | 95 | 89 | 94 | 101 |
| 240-191865-5 | EB-01/091123/ | 94 | 91 | 96 | 100 |
| 240-191865-6 | TB-01/091123/ | 93 | 90 | 92 | 97 |
| LCS 240-587660/4 | Lab Control Sample | 88 | 96 | 95 | 99 |
| MB 240-587660/7 | Method Blank | 92 | 92 | 94 | 96 |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 240-587660/7**
**Matrix: Water**
**Analysis Batch: 587660**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/19/23 12:31 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/19/23 12:31 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/19/23 12:31 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 12:31 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/19/23 12:31 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/19/23 12:31 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 12:31 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 12:31 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/19/23 12:31 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/19/23 12:31 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/19/23 12:31 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/19/23 12:31 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *62 - 137* | | *09/19/23 12:31* | *1* |
| *4-Bromofluorobenzene (Surr)* | *92* | | *56 - 136* | | *09/19/23 12:31* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/19/23 12:31* | *1* |
| *Dibromofluoromethane (Surr)* | *96* | | *73 - 120* | | *09/19/23 12:31* | *1* |

**Lab Sample ID: LCS 240-587660/4**
**Matrix: Water**
**Analysis Batch: 587660**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | | 25.0 | 23.7 | | ug/L | | 95 | 64 - 131 | | |
| 1,1-Dichloroethane | | | 25.0 | 24.1 | | ug/L | | 96 | 72 - 127 | | |
| 1,1-Dichloroethene | | | 25.0 | 25.6 | | ug/L | | 103 | 63 - 134 | | |
| Benzene | | | 25.0 | 24.2 | | ug/L | | 97 | 77 - 123 | | |
| cis-1,2-Dichloroethene | | | 25.0 | 25.2 | | ug/L | | 101 | 77 - 123 | | |
| Ethylbenzene | | | 25.0 | 26.2 | | ug/L | | 105 | 80 - 121 | | |
| m-Xylene & p-Xylene | | | 25.0 | 25.6 | | ug/L | | 103 | 80 - 120 | | |
| o-Xylene | | | 25.0 | 25.3 | | ug/L | | 101 | 80 - 123 | | |
| Tetrachloroethene | | | 25.0 | 24.6 | | ug/L | | 99 | 76 - 123 | | |
| Toluene | | | 25.0 | 23.3 | | ug/L | | 93 | 80 - 123 | | |
| trans-1,2-Dichloroethene | | | 25.0 | 24.4 | | ug/L | | 98 | 75 - 124 | | |
| Trichloroethene | | | 25.0 | 24.8 | | ug/L | | 99 | 70 - 122 | | |
| Vinyl chloride | | | 12.5 | 8.40 | | ug/L | | 67 | 60 - 144 | | |
| Xylenes, Total | | | 50.0 | 50.9 | | ug/L | | 102 | 80 - 121 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *88* | | *62 - 137* |
| *4-Bromofluorobenzene (Surr)* | *96* | | *56 - 136* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* |

# QC Association Summary

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

## GC/MS VOA

### Analysis Batch: 587660

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 240-191865-1 | HR-4/091123/ | Total/NA | Water | 8260D | |
| 240-191865-2 | W-2-N/091123/ | Total/NA | Water | 8260D | |
| 240-191865-3 | W-3-N/091123/ | Total/NA | Water | 8260D | |
| 240-191865-4 | W-4-N/091123/ | Total/NA | Water | 8260D | |
| 240-191865-5 | EB-01/091123/ | Total/NA | Water | 8260D | |
| 240-191865-6 | TB-01/091123/ | Total/NA | Water | 8260D | |
| MB 240-587660/7 | Method Blank | Total/NA | Water | 8260D | |
| LCS 240-587660/4 | Lab Control Sample | Total/NA | Water | 8260D | |

# Lab Chronicle

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

## Client Sample ID: HR-4/091123/
**Lab Sample ID: 240-191865-1**
**Date Collected: 09/11/23 12:35**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 587660 | LEE | EET CLE | 09/19/23 17:53 |

## Client Sample ID: W-2-N/091123/
**Lab Sample ID: 240-191865-2**
**Date Collected: 09/11/23 10:40**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 587660 | LEE | EET CLE | 09/19/23 18:18 |

## Client Sample ID: W-3-N/091123/
**Lab Sample ID: 240-191865-3**
**Date Collected: 09/11/23 16:45**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 587660 | LEE | EET CLE | 09/19/23 18:43 |

## Client Sample ID: W-4-N/091123/
**Lab Sample ID: 240-191865-4**
**Date Collected: 09/11/23 14:35**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 587660 | LEE | EET CLE | 09/19/23 19:07 |

## Client Sample ID: EB-01/091123/
**Lab Sample ID: 240-191865-5**
**Date Collected: 09/11/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 587660 | LEE | EET CLE | 09/19/23 19:32 |

## Client Sample ID: TB-01/091123/
**Lab Sample ID: 240-191865-6**
**Date Collected: 09/11/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 587660 | LEE | EET CLE | 09/19/23 19:56 |

**Laboratory References:**

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

# Accreditation/Certification Summary

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

## Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| California | State | 2927 | 02-27-24 |
| Georgia | State | 4062 | 02-27-24 |
| Illinois | NELAP | 200004 | 07-31-24 |
| Iowa | State | 421 | 06-01-25 |
| Kentucky (UST) | State | 112225 | 02-28-24 |
| Kentucky (WW) | State | KY98016 | 12-31-23 |
| Michigan | State | 9135 | 02-27-24 |
| Minnesota | NELAP | 039-999-348 | 12-28-23 |
| New Jersey | NELAP | OH001 | 07-01-24 |
| New York | NELAP | 10975 | 01-04-24 |
| Ohio | State | 8303 | 02-27-24 |
| Ohio VAP | State | ORELAP 4062 | 02-27-24 |
| Oregon | NELAP | 4062 | 11-27-23 |
| Pennsylvania | NELAP | 68-00340 | 01-01-24 |
| Texas | NELAP | T104704517-22-19 | 08-31-24 |
| Virginia | NELAP | 460175 | 09-14-24 |
| West Virginia DEP | State | 210 | 12-19-23 |

# Method Summary

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260D | Volatile Organic Compounds by GC/MS | SW846 | EET CLE |
| 5030C | Purge and Trap | SW846 | EET CLE |

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

# Sample Summary

Client: ARCADIS US Inc
Job ID: 240-191865-1
Project/Site: Racer Moraine Annual

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 240-191865-1 | HR-4/091123/ | Water | 09/11/23 12:35 | 09/16/23 09:25 |
| 240-191865-2 | W-2-N/091123/ | Water | 09/11/23 10:40 | 09/16/23 09:25 |
| 240-191865-3 | W-3-N/091123/ | Water | 09/11/23 16:45 | 09/16/23 09:25 |
| 240-191865-4 | W-4-N/091123/ | Water | 09/11/23 14:35 | 09/16/23 09:25 |
| 240-191865-5 | EB-01/091123/ | Water | 09/11/23 17:30 | 09/16/23 09:25 |
| 240-191865-6 | TB-01/091123/ | Water | 09/11/23 00:00 | 09/16/23 09:25 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Instrument ID: A3UX10 Analysis Batch Number: 583544

Lab Sample ID: IC 240-583544/3 Client Sample ID:

Date Analyzed: 08/10/23 15:15 Lab File ID: 10-0600.D GC Column: DB-624 ID: 0.18(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| 2,2-Dichloropropane | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| 2-Methyl-2-propanol | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| 3-Chloro-1-propene | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| Acrolein | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| Carbon disulfide | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| Chlorobenzene | | Invalid Compound ID | HE9L | 08/11/23 13:55 |
| Chloromethane | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| cis-1,2-Dichloroethene | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| Methyl acetate | | Invalid Compound ID | HE9L | 08/11/23 13:54 |
| Tetrahydrofuran | | Invalid Compound ID | HE9L | 08/11/23 13:55 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **vm50is_stk_A_00019** | 10/07/23 | 04/07/23 | MEOH, Lot +2504522C286201028 | 50 mL | vm30241_00009 | 1 mL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene | 50 ug/mL |
| .vm30241_00009 | 05/31/27 | | restek, Lot A0185733 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene | 2500 ug/mL |
| **vm50is_stk_A_00021** | 12/12/23 | 09/12/23 | MEOH, Lot +2504522C286201028 | 50 mL | vm30241_00009 | 1 mL | 1,4-Dichlorobenzene-d4 | 50 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 50 ug/mL |
| | | | | | | | Fluorobenzene | 50 ug/mL |
| .vm30241_00009 | 05/31/27 | | restek, Lot A0185733 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 2500 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 2500 ug/mL |
| | | | | | | | Fluorobenzene | 2500 ug/mL |
| **vm50ss_stk_00094** | 11/27/23 | 05/28/23 | MEOH, Lot 22C2862010 | 200 mL | VM567650_00038 | 4 mL | 1,2-Dichloroethane-d4 (Surr) | 50 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 50 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 50 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 50 ug/mL |
| .VM567650_00038 | 12/31/25 | | Restek, Lot A0167135 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMAROLISTDW_00496** | 08/15/23 | 08/08/23 | MEOH, Lot na | 5 mL | VMACROLSTD_00121 | 5 mL | Acrolein | 250 ug/mL |
| .VMACROLSTD_00121 | 08/31/23 | 08/08/23 | MEOH, Lot 22C2862010 | 20 mL | VM568720_00043 | 0.25 mL | Acrolein | 250 ug/mL |
| ..VM568720_00043 | 08/31/23 | | restek, Lot A0182162 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **vmbfb_00032** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total BTEX | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | vm30026_00004 | 1 mL | BFB | 50 ug/mL |
| .vm30026_00004 | 02/28/27 | | restek, Lot A0181998 | | (Purchased Reagent) | | BFB | 2000 ug/mL |
| **VMFASGW_00520** | 08/11/23 | 08/04/23 | MEOH, Lot NA | 5 mL | VMFASG_00133 | 5 mL | Vinyl chloride | 50 ug/mL |
| .VMFASG_00133 | 09/04/23 | 08/04/23 | MEOH, Lot 22C2862010 | 50 mL | vm569722S_00012 | 1 mL | Vinyl chloride | 50 ug/mL |
| ..vm569722S_00012 | 05/31/26 | | Restek, Lot A0197640 | | (Purchased Reagent) | | Vinyl chloride | 2500 ug/mL |
| **VMFASGW_00525** | 09/20/23 | 09/13/23 | MEOH, Lot NA | 5 mL | VMFASG_00134 | 5 mL | Vinyl chloride | 50 ug/mL |
| .VMFASG_00134 | 10/05/23 | 09/05/23 | MEOH, Lot 22C2862010 | 50 mL | vm569722S_00012 | 1 mL | Vinyl chloride | 50 ug/mL |
| ..vm569722S_00012 | 05/31/26 | | Restek, Lot A0197640 | | (Purchased Reagent) | | Vinyl chloride | 2500 ug/mL |
| **VMFASPW_00504** | 08/15/23 | 08/08/23 | MEOH, Lot n/a | 5 mL | VMRFASP_00086 | 5 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| .VMRFASP_00086 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992S_00009 | 2 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| ..VM571992S_00009 | 08/31/25 | | Restek, Lot A0195252 | | (Purchased Reagent) | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| | | | | | | | Xylenes, Total | 5000 ug/mL |
| **VMFASPW_00509** | 09/21/23 | 09/15/23 | MEOH, Lot n/a | 5 mL | VMRFASP_00086 | 5 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| .VMRFASP_00086 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992S_00009 | 2 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| ..VM571992S_00009 | 08/31/25 | | Restek, Lot A0195252 | | (Purchased Reagent) | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| | | | | | | | Xylenes, Total | 5000 ug/mL |
| **VMRGAS_00488** | 08/15/23 | 08/08/23 | MEOH, Lot 22C2862010 | 10 mL | vm569722_00026 | 0.2 mL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| .vm569722_00026 | 08/31/25 | | Restek, Lot A0189184 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| **VMRGAS_00494** | 09/22/23 | 09/16/23 | MEOH, Lot 22C2862010 | 10 mL | vm569722_00027 | 0.2 mL | Vinyl chloride | 50 ug/mL |
| .vm569722_00027 | 05/31/26 | | Restek, Lot A0198219 | | (Purchased Reagent) | | Vinyl chloride | 2500 ug/mL |
| **VMRPRIMW_00543** | 08/15/23 | 08/08/23 | MEOH, Lot NA | 5 mL | VMRPRIM_00063 | 5 mL | 2-Butanone (MEK) | 100 ug/mL |
| | | | | | | | 2-Hexanone | 100 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 100 ug/mL |
| | | | | | | | Acetone | 100 ug/mL |
| | | | | | | | 2-Chloroethyl vinyl ether | 100 ug/mL |
| | | | | | | | Vinyl acetate | 50 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,4-Dioxane | 1000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chlorobromomethane | 50 ug/mL |
| | | | | | | | Chlorodibromomethane | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Dichlorobromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Ethylene Dibromide | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 100 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| .VMRPRIM_00063 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM569721_00008 | 0.8 mL | 2-Butanone (MEK) | 100 ug/mL |
| | | | | | | | 2-Hexanone | 100 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 100 ug/mL |
| | | | | | | | Acetone | 100 ug/mL |
| | | | | | VM569723_00010 | 4 mL | 2-Chloroethyl vinyl ether | 100 ug/mL |
| | | | | | VM569724_00028 | 1 mL | Vinyl acetate | 50 ug/mL |
| | | | | | VM571992_00006 | 2 mL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,4-Dioxane | 1000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chlorobromomethane | 50 ug/mL |
| | | | | | | | Chlorodibromomethane | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Dichlorobromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Ethylene Dibromide | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 100 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| ..VM569721_00008 | 06/30/25 | | Restek, Lot A0186508 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VM569723_00010 | 09/30/24 | | restek, Lot A0176827 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VM569724_00028 | 01/31/24 | | Restek, Lot A0187365 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VM571992_00006 | 09/30/24 | | Restek, Lot A0183568 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,4-Dioxane | 50000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 25000 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chlorobromomethane | 2500 ug/mL |
| | | | | | | | Chlorodibromomethane | 2500 ug/mL |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Dichlorobromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Ethylene Dibromide | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 5000 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| **VMRPRIMW_00543** | 08/15/23 | 08/08/23 | MEOH, Lot NA | 5 mL | VMRPRIM_00063 | 5 mL | Xylenes, Total | 100 ug/mL |
| .VMRPRIM_00063 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992_00006 | 2 mL | Xylenes, Total | 100 ug/mL |
| ..VM571992_00006 | 09/30/24 | | Restek, Lot A0183568 | | (Purchased Reagent) | | Xylenes, Total | 5000 ug/mL |
| **VMRPRIMW_00548** | 09/22/23 | 09/15/23 | MEOH, Lot NA | 5 mL | VMRPRIM_00063 | 5 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| .VMRPRIM_00063 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992_00006 | 2 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| ..VM571992_00006 | 09/30/24 | Restek, Lot A0183568 | | | (Purchased Reagent) | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| | | | | | | | Xylenes, Total | 5000 ug/mL |

# Reagent

# vm30026_00004

VM30026_00004 Rcvd 6/3/22

# RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

## Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30026 **Lot No.:** A0181998

**Description :** 4-Bromofluorobenzene Mixture

4-Bromofluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 28, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1-Bromo-4-fluorobenzene (BFB) | 2,002.0 µg/mL | +/- 11.7489 | µg/mL | Gravimetric |
| | **CAS #** 460-00-4 (Lot 20401KO) | | +/- 112.2615 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 114.8878 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

# Reagent

# vm30241_00009

RESTEK

# Safety Data Sheet

**Revision Date: 11/03/20**
www.restek.com

2 Letter ISO country code/language code: US/EN

## 1. IDENTIFICATION

| | |
|---|---|
| **Catalog Number / Product Name:** | **30241 / 8260A Internal Standard Mix** |
| **Company:** | Restek Corporation |
| **Address:** | 110 Benner Circle<br>Bellefonte, Pa. 16823 |
| **Phone#:** | 814-353-1300 |
| **Fax#:** | 814-353-1309 |
| **Emergency#:** | 800-424-9300 (CHEMTREC)<br>703-527-3887 (Outside the US) |
| **Email:** | www.restek.com |
| **Revision Number:** | 12 |
| **Intended use:** | For Laboratory use only |

## 2. HAZARD(S)IDENTIFICATION

**Emergency Overview:**

**GHS Hazard Symbols:**

| | |
|---|---|
| **GHS Classification:** | Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1<br>Flammable Liquid Category 2<br>Acute Toxicity - Inhalation Dust / Mist Category 3<br>Acute Toxicity - Dermal Category 3<br>Acute Toxicity - Oral Category 3 |
| **GHS Signal Word:** | Danger |
| **GHS Hazard:** | Highly flammable liquid and vapour.<br>Toxic if swallowed, in contact with skin or if inhaled.<br>Causes damage to organs. |
| **GHS Precautions:** | |
| **Safety Precautions:** | Keep away from heat/sparks/open flames/hot surfaces. – No smoking.<br>Ground/bond container and receiving equipment.<br>Use explosion-proof electrical/ventilation and lighting equipment.<br>Use only non-sparking tools.<br>Take precautionary measures against static discharge.<br>Do not breathe dust/fume/gas/mist/vapours/spray.<br>Wash hands and skin thoroughly after handling.<br>Do not eat, drink or smoke when using this product.<br>Use only outdoors or in a well-ventilated area.<br>Wear protective gloves/protective clothing/eye protection/face protection. |
| **First Aid Measures:** | IF SWALLOWED: Immediately call a POISON CENTER/doctor/....<br>IF ON SKIN: Wash with plenty of soap and water.<br>IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.<br>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>Specific treatment see section 4.<br>Rinse mouth.<br>Take off immediately all contaminated clothing and wash it before reuse.<br>In case of fire: Use extinguishing media in section 5 for extinction. |
| **Storage:** | Store in a well-ventilated place. Keep container tightly closed. |

Store in a well-ventilated place. Keep cool.
Store locked up.

**Disposal:** Dispose of contents/container according to section 13 of the SDS.

**Single Exposure Target Organs:** Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

**Repeated Exposure Target Organs:** No data available

## 3. COMPOSITION / INFORMATION ON INGREDIENT

| Chemical Name | CAS # | EINEC # | % Composition |
|---|---|---|---|
| P&T Methanol | 67-56-1 | 200-659-6 | 99.25 |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | | 0.25 |
| fluorobenzene | 462-06-6 | 207-321-7 | 0.25 |
| chlorobenzene-d5 | 3114-55-4 | 221-482-0 | 0.25 |

## 4. FIRST-AID MEASURES

**Inhalation:** Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

**Eyes:** Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

**Ingestion:** Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

## 5. FIRE- FIGHTING MEASURES

**Extinguishing Media:** Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

**Fire and/or Explosion Hazards:** Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

**Fire Fighting Methods and Protection:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions and Equipment:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## 7. HANDLING AND STORAGE

| | |
|---|---|
| **Handling Technical Measures and Precautions:** | Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment |
| **Storage Technical Measures and Conditions:** | Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition |

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**United States:**

| Chemical Name | CAS No. | IDLH | ACGIH STEL | ACGIH TLV-TWA | OSHA Exposure Limit |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | 6000 ppm IDLH | 250 ppm STEL | 200 ppm TWA | 200 ppm TWA; 260 mg/m3 TWA |

**Personal Protection:**

| | |
|---|---|
| **Engineering Measures:** | Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing. |
| **Respiratory Protection:** | Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection. |
| **Eye Protection:** | Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses. |
| **Skin Protection:** | Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance, color:** | No data available |
| **Odor:** | Mild |
| **Physical State:** | Liquid |
| **pH:** | Not applicable |
| **Vapor Pressure:** | No data available |
| **Vapor Density:** | 1.1 (air = 1) |
| **Boiling Point (°C):** | 64.7 °C at 760 mmHg (HSDB) |
| **Melting Point (°C):** | -98 °C |
| **Flash Point (°F):** | 52 |
| **Flammability:** | Highly Flammable |
| **Upper Flammable/Explosive Limit, % in air:** | 36 |
| **Lower Flammable/Explosive Limit, % in air:** | 6 |
| **Autoignition Temperature (°C):** | 464 deg C |
| **Decomposition Temperature (°C):** | No data available |
| **Specific Gravity:** | 0.791 - 0.792 g/cm3 at 20 °C |
| **Evaporation Rate:** | No data available |
| **Odor Threshold:** | No data available |
| **Solubility:** | Moderate; 50-99% |
| **Partition Coefficient: n-octanol in water:** | No data available |
| **VOC % by weight:** | 99.25 |
| **Molecular Weight:** | 32.04 |

## 10. STABILITY AND REACTIVITY

| | |
|---|---|
| **Stability:** | Stable under normal conditions. |
| **Conditions to Avoid:** | None known. |
| **Materials to Avoid / Chemical Incompatiability:** | Strong oxidizing agents |
| **Hazardous Decomposition Products:** | Carbon dioxide Carbon monoxide |

## 11. TOXICOLOGICAL INFORMATION

| | |
|---|---|
| **Routes of Entry:** | Inhalation, Skin Contact, Eye Contact, Ingestion |
| **Target Organs Potentially Affected By Exposure:** | Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract |
| **Chemical Interactions That Change Toxicity:** | None Known |

**Immediate (Acute) Health Effects by Route of Exposure:**

| | |
|---|---|
| **Inhalation Irritation:** | Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache. |
| **Inhalation Toxicity:** | Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness. |
| **Skin Contact:** | Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Eye Contact:** | Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue. |
| **Ingestion Irritation:** | Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed. |
| **Ingestion Toxicity:** | Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed. |

**Long-Term (Chronic) Health Effects:**

| | |
|---|---|
| **Carcinogenicity:** | No data. |
| **Reproductive and Developmental Toxicity:** | No data available to indicate product or any components present at greater than 0.1% may cause birth defects. |
| **Inhalation:** | Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs) |
| **Skin Contact:** | Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage. |
| **Ingestion:** | Toxic if swallowed. May cause target organ failure and/or death. |

**Component Toxicological Data:**

**NIOSH:**

| Chemical Name | CAS No. | LD50/LC50 |
|---|---|---|
| Methanol | 67-56-1 | Inhalation LC50 Rat 22500 ppm 8 h |

**Component Carcinogenic Data:**

**OSHA:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**ACGIH:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**NIOSH:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**NTP:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**IARC:**

| Chemical Name | CAS No. | Group No. |
|---|---|---|

## 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| **Overview:** | Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. |
| **Mobility:** | No data |
| **Persistence:** | No data |
| **Bioaccumulation:** | No data |
| **Degradability:** | Biodegrades slowly. |
| **Ecological Toxicity Data:** | No data available |

## 13. DISPOSAL CONSIDERATIONS

| | |
|---|---|
| **Waste Description of Spent Product:** | Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures. |
| **Disposal Methods:** | Dispose of by incineration following Federal, State, Local, or Provincial regulations. |
| **Waste Disposal of Packaging:** | Comply with all Local, State, Federal, and Provincial Environmental Regulations. |

## 14. TRANSPORTATION INFORMATION

**United States:**

| | |
|---|---|
| **DOT Proper Shipping Name:** | Methanol |
| **UN Number:** | UN1230 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |

**International:**

| | |
|---|---|
| **IATA Proper Shipping Name:** | Methanol |
| **UN Number:** | UN1230 |
| **Hazard Class:** | 3(6.1) |
| **Packing Group:** | II |

**Marine Pollutant:** No

| Chemical Name | CAS# | Marine Pollutant | Severe Marine Pollutant |
|---|---|---|---|
| No data available | | | |

## 15. REGULATORY INFORMATION

**United States:**

| Chemical Name | CAS# | CERCLA | SARA 313 | SARA EHS 313 | TSCA |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | X | X | - | X |

**The following chemicals are listed on CA Prop 65:**

| Chemical Name | CAS # | Regulation |
|---|---|---|
| Methanol | 67-56-1 | Prop 65 Devolop Tox |

**State Right To Know Listing:**

| Chemical Name | CAS# | New Jersey | Massachusetts | Pennsylvania | California |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | X | X | X | X |
| 1,4-dichlorobenzene-d4 | 3855-82-1 | - | - | - | - |
| fluorobenzene | 462-06-6 | X | X | X | - |
| chlorobenzene-d5 | 3114-55-4 | - | - | - | - |

## 16. OTHER INFORMATION

| | |
|---|---|
| **Prior Version Date:** | 04/22/19 |
| **Other Information:** | Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph. |
| **References:** | No data available |
| **Disclaimer:** | Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk. |

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

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Certificate #3222.01

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Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30241 **Lot No.:** A0185733

**Description :** 8260A Internal Standard Mix

8260A Internal Standard Mix 2,500 µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

**CERTIFIED VALUES**

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Fluorobenzene | 2,504.0 µg/mL | +/- 14.5585 µg/mL | Gravimetric |
| | **CAS #** 462-06-6 (Lot BCBZ5549) | | +/- 140.3968 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.6819 µg/mL | Stressed |
| 2 | Chlorobenzene-d5 | 2,508.0 µg/mL | +/- 14.5817 µg/mL | Gravimetric |
| | **CAS #** 3114-55-4 (Lot PR-29571) | | +/- 140.6211 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.9114 µg/mL | Stressed |
| 3 | 1,4-Dichlorobenzene-d4 | 2,500.6 µg/mL | +/- 14.5387 µg/mL | Gravimetric |
| | **CAS #** 3855-82-1 (Lot PR-30447) | | +/- 140.2062 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.4868 µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

Rec'd 9.13.22 TS/HB

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

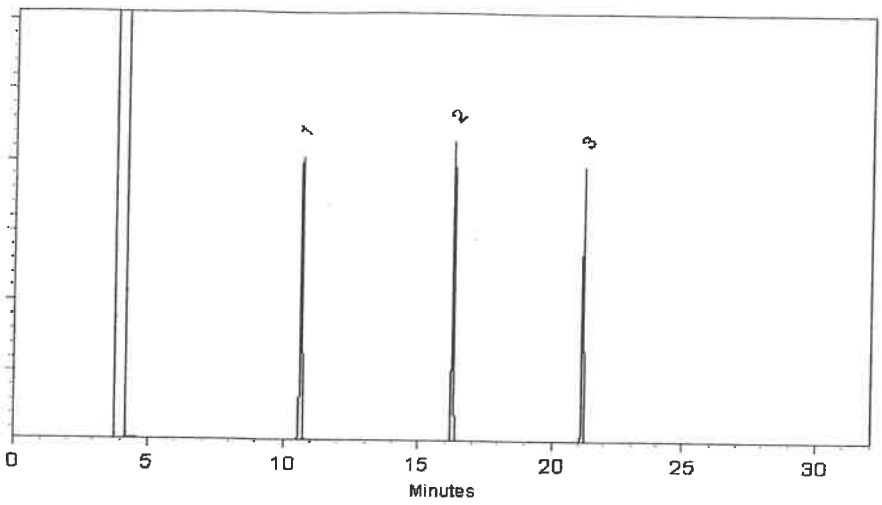
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Josh McCloskey - Operations Technician I

**Date Mixed:** 26-May-2022 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

**Date Passed:** 31-May-2022

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

# Reagent

# VM567650_00038

Rec: 4/16/21 (29)
VM567650-00038

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## Certificate of Analysis

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 567650 **Lot No.:** A0167135

**Description :** 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** December 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Dibromofluoromethane | 2,523.0 µg/mL | +/- 14.6689 µg/mL | Gravimetric |
| | **CAS #** 1868-53-7 (Lot 0012016) | | +/- 141.4621 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 144.7721 µg/mL | Stressed |
| 2 | 1,2-Dichloroethane-d4 | 2,509.4 µg/mL | +/- 14.5899 µg/mL | Gravimetric |
| | **CAS #** 17060-07-0 (Lot PR-29377) | | +/- 140.6996 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.9918 µg/mL | Stressed |
| 3 | Toluene-d8 | 2,503.2 µg/mL | +/- 14.5538 µg/mL | Gravimetric |
| | **CAS #** 2037-26-5 (Lot PR-30867) | | +/- 140.3519 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.6360 µg/mL | Stressed |
| 4 | 1-Bromo-4-fluorobenzene (BFB) | 2,523.8 µg/mL | +/- 14.6736 µg/mL | Gravimetric |
| | **CAS #** 460-00-4 (Lot 20401KO) | | +/- 141.5070 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 144.8180 µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

# Reagent

# VM568720_00043

VM 568720 — 00043 Rcd 9/21/22

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568720 **Lot No.:** A0182162

**Description :** 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2023 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** On Ice

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acrolein | 19,750.0 µg/mL | +/- 115.6406 µg/mL | Gravimetric |
| | **CAS #** 107-02-8 (Lot RD220120) | | +/- 394.5522 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 885.1676 µg/mL | Stressed |

**Solvent:** Water
**CAS #** 7732-18-5
**Purity** 99%

# Reagent

# VM569721_00008

VM569721_00008

Rcd 9-21-22

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## Certificate of Analysis

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*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569721 **Lot No.:** A0186508

**Description :** 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** June 30, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone<br>**CAS #** 67-64-1 (Lot MKCQ7914)<br>**Purity** 99% | 12,514.5 µg/mL | +/- 73.2751 µg/mL<br>+/- 755.1050 µg/mL<br>+/- 756.8975 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 2-Butanone (MEK)<br>**CAS #** 78-93-3 (Lot SHBN2844)<br>**Purity** 99% | 12,543.5 µg/mL | +/- 73.4450 µg/mL<br>+/- 756.8548 µg/mL<br>+/- 758.6515 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK)<br>**CAS #** 108-10-1 (Lot SHBN3601)<br>**Purity** 99% | 12,528.5 µg/mL | +/- 73.3571 µg/mL<br>+/- 755.9498 µg/mL<br>+/- 757.7443 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2-Hexanone<br>**CAS #** 591-78-6 (Lot MKCQ6663)<br>**Purity** 99% | 12,528.0 µg/mL | +/- 73.3542 µg/mL<br>+/- 755.9196 µg/mL<br>+/- 757.7140 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

# Reagent

# vm569722_00026

Rec'd 4/20/23 JM 569722 00026

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# CERTIFIED REFERENCE MATERIAL

# Certificate of Analysis

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ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722 **Lot No.:** A0189184

**Description :** 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 2,500.3 µg/mL | +/- 18.6878 µg/mL | Gravimetric |
| | **CAS #** 75-71-8 (Lot 00012554) | | +/- 140.6792 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.9483 µg/mL | Stressed |
| 2 | Chloromethane (methyl chloride) | 2,500.0 µg/mL | +/- 17.9318 µg/mL | Gravimetric |
| | **CAS #** 74-87-3 (Lot SHBK6571) | | +/- 140.5648 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.8357 µg/mL | Stressed |
| 3 | Vinyl chloride | 2,500.2 µg/mL | +/- 20.7208 µg/mL | Gravimetric |
| | **CAS #** 75-01-4 (Lot 00015559) | | +/- 140.9576 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 144.2201 µg/mL | Stressed |
| 4 | 1,3-Butadiene | 2,499.9 µg/mL | +/- 18.9759 µg/mL | Gravimetric |
| | **CAS #** 106-99-0 (Lot 00019375) | | +/- 140.6968 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.9645 µg/mL | Stressed |
| 5 | Bromomethane (methyl bromide) | 2,500.1 µg/mL | +/- 19.8264 µg/mL | Gravimetric |
| | **CAS #** 74-83-9 (Lot 101604) | | +/- 140.8262 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 144.0915 µg/mL | Stressed |
| 6 | Chloroethane (ethyl chloride) | 2,500.6 µg/mL | +/- 23.7833 µg/mL | Gravimetric |
| | **CAS #** 75-00-3 (Lot 107-401039114-1) | | +/- 141.4639 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 144.7161 µg/mL | Stressed |
| 7 | Dichlorofluoromethane (CFC-21) | 2,500.0 µg/mL | +/- 14.5352 µg/mL | Gravimetric |
| | **CAS #** 75-43-4 (Lot 12841600) | | +/- 140.1725 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 143.4524 µg/mL | Stressed |

# Reagent

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# vm569722_00027

Rec'd 8-30-23 VH 569722 — 00927

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# Certificate of Analysis

*chromatographic plus*

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722 **Lot No.:** A0198219

**Description :** 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2026 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | CAS # | Lot # | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---|---|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 75-71-8 | 00012554 | 99% | 2,501.0 µg/mL | +/- 141.1841 |
| 2 | Chloromethane (methyl chloride) | 74-87-3 | SHBM9611 | 99% | 2,503.5 µg/mL | +/- 141.4535 |
| 3 | Vinyl chloride | 75-01-4 | 00015559 | 99% | 2,504.0 µg/mL | +/- 141.5201 |
| 4 | 1,3-Butadiene | 106-99-0 | 00015314 | 99% | 2,503.4 µg/mL | +/- 140.8433 |
| 5 | Bromomethane (methyl bromide) | 74-83-9 | 101604 | 99% | 2,508.8 µg/mL | +/- 141.7591 |
| 6 | Chloroethane (ethyl chloride) | 75-00-3 | 107-401039114-1 | 99% | 2,500.4 µg/mL | +/- 141.1450 |
| 7 | Dichlorofluoromethane (CFC-21) | 75-43-4 | 14150400 | 90% | 2,502.0 µg/mL | +/- 140.5515 |
| 8 | Trichlorofluoromethane (CFC-11) | 75-69-4 | MKCL8411 | 99% | 2,504.2 µg/mL | +/- 141.6568 |

* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

# Reagent

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# vm569722S_00012

Rec'd 5-15-23

VM569722S_0002

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

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**Catalog No. :** 569722.SEC **Lot No.:** A0197640

**Description :** 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2026 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | CAS # | Lot # | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---|---|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 75-71-8.SEC | 28302 | 99% | 2,519.8 µg/mL | +/- 142.0069 |
| 2 | Chloromethane (methyl chloride) | 74-87-3.SEC | 00016950 | 99% | 2,503.3 µg/mL | +/- 142.0942 |
| 3 | Vinyl chloride | 75-01-4.SEC | MKBK6872V | 99% | 2,508.3 µg/mL | +/- 141.4767 |
| 4 | 1,3-Butadiene | 106-99-0.SEC | 26996 | 99% | 2,521.0 µg/mL | +/- 142.1930 |
| 5 | Bromomethane (methyl bromide) | 74-83-9.SEC | 00017022 | 99% | 2,516.4 µg/mL | +/- 141.9614 |
| 6 | Chloroethane (ethyl chloride) | 75-00-3.SEC | 00004202 | 98% | 2,532.0 µg/mL | +/- 143.0282 |
| 7 | Dichlorofluoromethane (CFC-21) | 75-43-4 * | 14150400 | 90% | 2,502.0 µg/mL | +/- 140.5515 |
| 8 | Trichlorofluoromethane (CFC-11) | 75-69-4.SEC | 00010739 | 99% | 2,524.7 µg/mL | +/- 143.6054 |

* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

# Reagent

# VM569723_00010

Rec'd 2/19/24 VM569723 — 00010

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*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569723 **Lot No.:** A0176827

**Description :** 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** September 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 2-Chloroethyl vinyl ether<br>**CAS #** 110-75-8 (Lot MKCD0033)<br>**Purity** 99% | 2,505.0 µg/mL | +/- 14.7007 µg/mL<br>+/- 53.6696 µg/mL<br>+/- 55.2277 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

# Reagent

# VM569724_00028

VM569724 — D00028

Rcvd 9/21/22

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569724 **Lot No.:** A0187365

**Description :** 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2024 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** On Ice

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Vinyl acetate | 5,022.0 µg/mL | +/- 29.4049 | µg/mL | Gravimetric |
| | **CAS #** 108-05-4 (Lot RD220630) | | +/- 303.0195 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 303.7388 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

# Reagent

# VM571992_00006

VM571992 — 00006 Rc'd 10/31/22

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## Certificate of Analysis

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992 **Lot No.:** A0183568

**Description :** 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** September 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Diethyl ether (ethyl ether)<br>**CAS #** 60-29-7 (Lot SHBN4280)<br>**Purity** 99% | 2,506.6 µg/mL | +/- 14.5737 µg/mL<br>+/- 151.2358 µg/mL<br>+/- 151.5949 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113)<br>**CAS #** 76-13-1 (Lot 00016133)<br>**Purity** 99% | 2,514.5 µg/mL | +/- 14.6195 µg/mL<br>+/- 151.7109 µg/mL<br>+/- 152.0711 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,1-dichloroethene<br>**CAS #** 75-35-4 (Lot SHBG8609V)<br>**Purity** 99% | 2,515.1 µg/mL | +/- 14.6232 µg/mL<br>+/- 151.7486 µg/mL<br>+/- 152.1089 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | tert-Butanol (TBA)<br>**CAS #** 75-65-0 (Lot 101619K21F-1)<br>**Purity** 99% | 25,080.8 µg/mL | +/- 145.8140 µg/mL<br>+/- 1,513.2321 µg/mL<br>+/- 1,516.8247 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Methyl acetate<br>**CAS #** 79-20-9 (Lot SHBM1320)<br>**Purity** 99% | 5,026.6 µg/mL | +/- 29.2252 µg/mL<br>+/- 303.2786 µg/mL<br>+/- 303.9986 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | Iodomethane (methyl iodide)<br>**CAS #** 74-88-4 (Lot RD220125)<br>**Purity** 99% | 2,505.3 µg/mL | +/- 14.5657 µg/mL<br>+/- 151.1528 µg/mL<br>+/- 151.5117 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | Allyl chloride ( 3-chloropropene )<br>**CAS #** 107-05-1 (Lot RD211021)<br>**Purity** 99% | 2,509.1 µg/mL | +/- 14.5883 µg/mL<br>+/- 151.3866 µg/mL<br>+/- 151.7460 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Methylene chloride (dichloromethane) | | 2,513.3 | µg/mL | +/- | 14.6123 | µg/mL | Gravimetric |
| | **CAS #** 75-09-2 | (Lot SHBP1417) | | | +/- | 151.6355 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9955 | µg/mL | Stressed |
| 9 | Carbon disulfide | | 2,510.1 | µg/mL | +/- | 14.5941 | µg/mL | Gravimetric |
| | **CAS #** 75-15-0 | (Lot N28F701) | | | +/- | 151.4470 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8065 | µg/mL | Stressed |
| 10 | Acrylonitrile | | 25,102.9 | µg/mL | +/- | 145.9426 | µg/mL | Gravimetric |
| | **CAS #** 107-13-1 | (Lot SHBK4954) | | | +/- | 1,514.5670 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 1,518.1628 | µg/mL | Stressed |
| 11 | Methyl-tert-butyl ether ( MTBE ) | | 2,513.8 | µg/mL | +/- | 14.6152 | µg/mL | Gravimetric |
| | **CAS #** 1634-04-4 | (Lot SHBN6497) | | | +/- | 151.6657 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0258 | µg/mL | Stressed |
| 12 | cis-1,2-Dichloroethene | | 2,515.1 | µg/mL | +/- | 14.6232 | µg/mL | Gravimetric |
| | **CAS #** 156-59-2 | (Lot MKCP7830) | | | +/- | 151.7486 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1089 | µg/mL | Stressed |
| 13 | n-Hexane (C6) | | 2,515.5 | µg/mL | +/- | 14.6253 | µg/mL | Gravimetric |
| | **CAS #** 110-54-3 | (Lot SHBL9879) | | | +/- | 151.7713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1316 | µg/mL | Stressed |
| 14 | 1,1-Dichloroethane | | 2,517.9 | µg/mL | +/- | 14.6391 | µg/mL | Gravimetric |
| | **CAS #** 75-34-3 | (Lot 760200) | | | +/- | 151.9146 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2752 | µg/mL | Stressed |
| 15 | 2,2-Dichloropropane | | 2,517.9 | µg/mL | +/- | 14.6391 | µg/mL | Gravimetric |
| | **CAS #** 594-20-7 | (Lot RD211103) | | | +/- | 151.9146 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2752 | µg/mL | Stressed |
| 16 | trans-1,2-Dichloroethene | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 156-60-5 | (Lot MKBH9850V) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 17 | Isobutanol (2-Methyl-1-propanol) | | 62,633.1 | µg/mL | +/- | 364.1354 | µg/mL | Gravimetric |
| | **CAS #** 78-83-1 | (Lot 098794J01H) | | | +/- | 3,778.9321 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 3,787.9040 | µg/mL | Stressed |
| 18 | chloroform | | 2,510.9 | µg/mL | +/- | 14.5984 | µg/mL | Gravimetric |
| | **CAS #** 67-66-3 | (Lot SHBN8469) | | | +/- | 151.4922 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8519 | µg/mL | Stressed |
| 19 | Bromochloromethane | | 2,517.0 | µg/mL | +/- | 14.6341 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5 | (Lot 00008541) | | | +/- | 151.8618 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2223 | µg/mL | Stressed |
| 20 | Tetrahydrofuran | | 5,036.1 | µg/mL | +/- | 29.2805 | µg/mL | Gravimetric |
| | **CAS #** 109-99-9 | (Lot SHBN3757) | | | +/- | 303.8517 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 304.5731 | µg/mL | Stressed |
| 21 | 1,1,1-trichloroethane | | 2,509.6 | µg/mL | +/- | 14.5912 | µg/mL | Gravimetric |
| | **CAS #** 71-55-6 | (Lot RD220215) | | | +/- | 151.4168 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7763 | µg/mL | Stressed |
| 22 | Cyclohexane | | 2,510.0 | µg/mL | +/- | 14.5934 | µg/mL | Gravimetric |
| | **CAS #** 110-82-7 | (Lot EA003-US) | | | +/- | 151.4394 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7990 | µg/mL | Stressed |
| 23 | 1,1-Dichloropropene | | 2,513.8 | µg/mL | +/- | 14.6152 | µg/mL | Gravimetric |
| | **CAS #** 563-58-6 | (Lot 220217JLM) | | | +/- | 151.6657 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0258 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | carbon tetrachloride | | 2,513.5 | µg/mL | +/- | 14.6137 | µg/mL | Gravimetric |
| | **CAS #** 56-23-5 | (Lot SHBL8097) | | | +/- | 151.6506 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0106 | µg/mL | Stressed |
| 25 | n-Heptane (C7) | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 142-82-5 | (Lot SGBL9221) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 26 | 1,2-Dichloroethane | | 2,514.4 | µg/mL | +/- | 14.6188 | µg/mL | Gravimetric |
| | **CAS #** 107-06-2 | (Lot MKCN9758) | | | +/- | 151.7034 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0636 | µg/mL | Stressed |
| 27 | Benzene | | 2,509.3 | µg/mL | +/- | 14.5890 | µg/mL | Gravimetric |
| | **CAS #** 71-43-2 | (Lot MKCM9242) | | | +/- | 151.3942 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7536 | µg/mL | Stressed |
| 28 | Trichloroethene | | 2,507.5 | µg/mL | +/- | 14.5788 | µg/mL | Gravimetric |
| | **CAS #** 79-01-6 | (Lot SHBL5816) | | | +/- | 151.2886 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.6478 | µg/mL | Stressed |
| 29 | Methylcyclohexane | | 2,510.3 | µg/mL | +/- | 14.5948 | µg/mL | Gravimetric |
| | **CAS #** 108-87-2 | (Lot SHBL0078) | | | +/- | 151.4545 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8141 | µg/mL | Stressed |
| 30 | 1,2-Dichloropropane | | 2,510.9 | µg/mL | +/- | 14.5984 | µg/mL | Gravimetric |
| | **CAS #** 78-87-5 | (Lot BCBR0882V) | | | +/- | 151.4922 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8519 | µg/mL | Stressed |
| 31 | 1,4-Dioxane | | 50,187.5 | µg/mL | +/- | 291.7792 | µg/mL | Gravimetric |
| | **CAS #** 123-91-1 | (Lot SHBM9675) | | | +/- | 3,028.0328 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 3,035.2219 | µg/mL | Stressed |
| 32 | Dibromomethane | | 2,511.0 | µg/mL | +/- | 14.5992 | µg/mL | Gravimetric |
| | **CAS #** 74-95-3 | (Lot 10201030) | | | +/- | 151.4998 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8594 | µg/mL | Stressed |
| 33 | cis-1,3-Dichloropropene | | 2,513.8 | µg/mL | +/- | 14.6152 | µg/mL | Gravimetric |
| | **CAS #** 10061-01-5 | (Lot RD220311) | | | +/- | 151.6657 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0258 | µg/mL | Stressed |
| 34 | Toluene | | 2,518.4 | µg/mL | +/- | 14.6420 | µg/mL | Gravimetric |
| | **CAS #** 108-88-3 | (Lot MKCQ2779) | | | +/- | 151.9447 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3055 | µg/mL | Stressed |
| 35 | Ethyl methacrylate | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 97-63-2 | (Lot MKCL0907) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 36 | trans-1,3-Dichloropropene | | 2,504.5 | µg/mL | +/- | 14.5615 | µg/mL | Gravimetric |
| | **CAS #** 10061-02-6 | (Lot RD211104) | | | +/- | 151.1083 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 151.4671 | µg/mL | Stressed |
| 37 | 1,1,2-Trichloroethane | | 2,513.6 | µg/mL | +/- | 14.6144 | µg/mL | Gravimetric |
| | **CAS #** 79-00-5 | (Lot FGB01) | | | +/- | 151.6581 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0182 | µg/mL | Stressed |
| 38 | 1,3-Dichloropropane | | 2,513.6 | µg/mL | +/- | 14.6144 | µg/mL | Gravimetric |
| | **CAS #** 142-28-9 | (Lot BCBC6265) | | | +/- | 151.6581 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0182 | µg/mL | Stressed |
| 39 | Tetrachloroethene | | 2,507.5 | µg/mL | +/- | 14.5788 | µg/mL | Gravimetric |
| | **CAS #** 127-18-4 | (Lot SHBJ7422) | | | +/- | 151.2886 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.6478 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 40 | dibromochloromethane | | 2,514.8 | µg/mL | +/- | 14.6210 | µg/mL | Gravimetric |
| | **CAS #** 124-48-1 | (Lot MKCM8659) | | | +/- | 151.7260 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0862 | µg/mL | Stressed |
| 41 | 1,2-Dibromoethane (EDB) | | 2,513.9 | µg/mL | +/- | 14.6159 | µg/mL | Gravimetric |
| | **CAS #** 106-93-4 | (Lot BCCF5058) | | | +/- | 151.6732 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0333 | µg/mL | Stressed |
| 42 | Chlorobenzene | | 2,507.9 | µg/mL | +/- | 14.5810 | µg/mL | Gravimetric |
| | **CAS #** 108-90-7 | (Lot SHBL8110) | | | +/- | 151.3112 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.6704 | µg/mL | Stressed |
| 43 | m-Xylene | | 1,260.0 | µg/mL | +/- | 7.3257 | µg/mL | Gravimetric |
| | **CAS #** 108-38-3 | (Lot Q13G020) | | | +/- | 76.0214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 76.2019 | µg/mL | Stressed |
| 44 | p-Xylene | | 1,258.6 | µg/mL | +/- | 7.3178 | µg/mL | Gravimetric |
| | **CAS #** 106-42-3 | (Lot 10234437) | | | +/- | 75.9384 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 76.1187 | µg/mL | Stressed |
| 45 | Ethylbenzene | | 2,516.0 | µg/mL | +/- | 14.6282 | µg/mL | Gravimetric |
| | **CAS #** 100-41-4 | (Lot SHBM4308) | | | +/- | 151.8014 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1618 | µg/mL | Stressed |
| 46 | 1,1,1,2-Tetrachloroethane | | 2,519.1 | µg/mL | +/- | 14.6464 | µg/mL | Gravimetric |
| | **CAS #** 630-20-6 | (Lot TMWGK) | | | +/- | 151.9900 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3508 | µg/mL | Stressed |
| 47 | o-Xylene | | 2,513.5 | µg/mL | +/- | 14.6134 | µg/mL | Gravimetric |
| | **CAS #** 95-47-6 | (Lot SHBN5105) | | | +/- | 151.6479 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 152.0079 | µg/mL | Stressed |
| 48 | Styrene | | 2,509.1 | µg/mL | +/- | 14.5883 | µg/mL | Gravimetric |
| | **CAS #** 100-42-5 | (Lot MKCP3941) | | | +/- | 151.3866 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7460 | µg/mL | Stressed |
| 49 | Isopropylbenzene (cumene) | | 2,518.5 | µg/mL | +/- | 14.6428 | µg/mL | Gravimetric |
| | **CAS #** 98-82-8 | (Lot Z20D022) | | | +/- | 151.9523 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3130 | µg/mL | Stressed |
| 50 | bromoform | | 2,511.0 | µg/mL | +/- | 14.5992 | µg/mL | Gravimetric |
| | **CAS #** 75-25-2 | (Lot SHBK4455) | | | +/- | 151.5001 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 151.8597 | µg/mL | Stressed |
| 51 | bromodichloromethane | | 2,518.1 | µg/mL | +/- | 14.6406 | µg/mL | Gravimetric |
| | **CAS #** 75-27-4 | (Lot MKCM7156) | | | +/- | 151.9296 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2903 | µg/mL | Stressed |
| 52 | 1,1,2,2-Tetrachloroethane | | 2,515.5 | µg/mL | +/- | 14.6253 | µg/mL | Gravimetric |
| | **CAS #** 79-34-5 | (Lot CFA4D) | | | +/- | 151.7713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1316 | µg/mL | Stressed |
| 53 | 1,2,3-Trichloropropane | | 2,512.5 | µg/mL | +/- | 14.6079 | µg/mL | Gravimetric |
| | **CAS #** 96-18-4 | (Lot 332900) | | | +/- | 151.5903 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9502 | µg/mL | Stressed |
| 54 | trans-1,4-dichloro-2-butene | | 2,511.8 | µg/mL | +/- | 14.6038 | µg/mL | Gravimetric |
| | **CAS #** 110-57-6 | (Lot RD220405A) | | | +/- | 151.5480 | µg/mL | Unstressed |
| | **Purity** 95% | | | | +/- | 151.9078 | µg/mL | Stressed |
| 55 | n-Propylbenzene | | 2,515.6 | µg/mL | +/- | 14.6261 | µg/mL | Gravimetric |
| | **CAS #** 103-65-1 | (Lot MKCN1126) | | | +/- | 151.7788 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1392 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 56 | Bromobenzene | | 2,516.9 | µg/mL | +/- | 14.6333 | µg/mL | Gravimetric |
| | **CAS #** 108-86-1 | (Lot MKBD4032V) | | | +/- | 151.8542 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2147 | µg/mL | Stressed |
| 57 | 1,3,5-Trimethylbenzene | | 2,512.3 | µg/mL | +/- | 14.6064 | µg/mL | Gravimetric |
| | **CAS #** 108-67-8 | (Lot BCCD0427) | | | +/- | 151.5752 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9350 | µg/mL | Stressed |
| 58 | 2-Chlorotoluene | | 2,510.9 | µg/mL | +/- | 14.5984 | µg/mL | Gravimetric |
| | **CAS #** 95-49-8 | (Lot MKCF5243) | | | +/- | 151.4922 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8519 | µg/mL | Stressed |
| 59 | 4-Chlorotoluene | | 2,513.1 | µg/mL | +/- | 14.6115 | µg/mL | Gravimetric |
| | **CAS #** 106-43-4 | (Lot MKCC8496) | | | +/- | 151.6280 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9880 | µg/mL | Stressed |
| 60 | tert-Butylbenzene | | 2,514.6 | µg/mL | +/- | 14.6202 | µg/mL | Gravimetric |
| | **CAS #** 98-06-6 | (Lot STBD6954V) | | | +/- | 151.7185 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0787 | µg/mL | Stressed |
| 61 | 1,2,4-Trimethylbenzene | | 2,517.1 | µg/mL | +/- | 14.6348 | µg/mL | Gravimetric |
| | **CAS #** 95-63-6 | (Lot WXBC9428V) | | | +/- | 151.8696 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 152.2302 | µg/mL | Stressed |
| 62 | sec-Butylbenzene | | 2,519.3 | µg/mL | +/- | 14.6471 | µg/mL | Gravimetric |
| | **CAS #** 135-98-8 | (Lot MKCN2920) | | | +/- | 151.9975 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3584 | µg/mL | Stressed |
| 63 | p-Isopropyltoluene (p-Cymene) | | 2,512.0 | µg/mL | +/- | 14.6050 | µg/mL | Gravimetric |
| | **CAS #** 99-87-6 | (Lot MKCP6638) | | | +/- | 151.5601 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9199 | µg/mL | Stressed |
| 64 | 1,3-Dichlorobenzene | | 2,515.5 | µg/mL | +/- | 14.6253 | µg/mL | Gravimetric |
| | **CAS #** 541-73-1 | (Lot BCBZ7498) | | | +/- | 151.7713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1316 | µg/mL | Stressed |
| 65 | 1,4-Dichlorobenzene | | 2,513.4 | µg/mL | +/- | 14.6130 | µg/mL | Gravimetric |
| | **CAS #** 106-46-7 | (Lot MKBS4401V) | | | +/- | 151.6431 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0031 | µg/mL | Stressed |
| 66 | n-Butylbenzene | | 2,511.0 | µg/mL | +/- | 14.5992 | µg/mL | Gravimetric |
| | **CAS #** 104-51-8 | (Lot 09418JJ) | | | +/- | 151.4998 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8594 | µg/mL | Stressed |
| 67 | 1,2-Dichlorobenzene | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 95-50-1 | (Lot SHBN3835) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 68 | 1,2-Dibromo-3-chloropropane | | 2,512.4 | µg/mL | +/- | 14.6074 | µg/mL | Gravimetric |
| | **CAS #** 96-12-8 | (Lot HBMVB) | | | +/- | 151.5855 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 151.9454 | µg/mL | Stressed |
| 69 | 1,2,4-Trichlorobenzene | | 2,510.4 | µg/mL | +/- | 14.5955 | µg/mL | Gravimetric |
| | **CAS #** 120-82-1 | (Lot SHBM0526) | | | +/- | 151.4620 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8216 | µg/mL | Stressed |
| 70 | Hexachlorobutadiene | | 2,509.3 | µg/mL | +/- | 14.5890 | µg/mL | Gravimetric |
| | **CAS #** 87-68-3 | (Lot X05J) | | | +/- | 151.3942 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7536 | µg/mL | Stressed |
| 71 | Naphthalene | | 2,520.6 | µg/mL | +/- | 14.6551 | µg/mL | Gravimetric |
| | **CAS #** 91-20-3 | (Lot MKCH0219) | | | +/- | 152.0805 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.4415 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 72 | 1,2,3-Trichlorobenzene<br>**CAS #** 87-61-6<br>**Purity** 99% | (Lot MKBX7627V) | 2,513.0 | µg/mL | +/- 14.6108<br>+/- 151.6204<br>+/- 151.9804 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

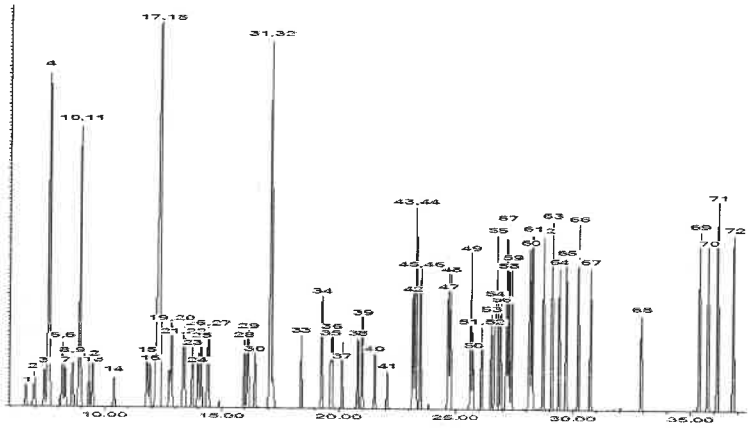
**Carrier Gas:**
helium-constant pressure 30 psi

**Temp. Program:**
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

**Date Mixed:** 31-Mar-2022 **Balance:** B707717271

Fang-Yun Lo - QC Analyst

**Date Passed:** 21-Apr-2022

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

# Reagent

# VM571992S_00009

VM 571992.SEC — 00009 Rec'd 6/19

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

# Certificate of Analysis

***chromatographic plus***

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992.SEC **Lot No.:** A0195252

**Description :** 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | CAS # | Lot # | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---|---|---|---|---|---|---|
| 1 | Diethyl ether (ethyl ether) | 60-29-7.SEC | F23X068 | 99% | 2,516.7 µg/mL | +/- 86.9644 |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 76-13-1.SEC | 18342 | 99% | 2,520.0 µg/mL | +/- 87.0795 |
| 3 | 1,1-Dichloroethene | 75-35-4.SEC | 13896500 | 99% | 2,525.0 µg/mL | +/- 87.2523 |
| 4 | tert-Butanol (TBA) | 75-65-0.SEC | DI34O | 99% | 25,129.5 µg/mL | +/- 868.3580 |
| 5 | Methyl acetate | 79-20-9.SEC | UCNEL | 99% | 5,029.0 µg/mL | +/- 173.7790 |
| 6 | Iodomethane (methyl iodide) | 74-88-4.SEC | Y25A027 | 99% | 2,521.7 µg/mL | +/- 87.1371 |
| 7 | Allyl chloride ( 3-chloropropene ) | 107-05-1.SEC | RD210329 | 99% | 2,518.2 µg/mL | +/- 87.0162 |
| 8 | Methylene chloride (dichloromethane) | 75-09-2.SEC | FGM02 | 99% | 2,516.7 µg/mL | +/- 86.9644 |
| 9 | Carbon disulfide | 75-15-0.SEC | MKBL1376V | 99% | 2,511.7 µg/mL | +/- 86.7916 |
| 10 | Acrylonitrile | 107-13-1.SEC | V54AD | 99% | 25,200.3 µg/mL | +/- 870.8057 |
| 11 | Methyl-tert-butyl ether ( MTBE ) | 1634-04-4.SEC | CDCQG | 99% | 2,517.3 µg/mL | +/- 86.9874 |
| 12 | cis-1,2-Dichloroethene | 156-59-2.SEC | YZO5O | 99% | 2,515.3 µg/mL | +/- 86.9183 |
| 13 | n-Hexane (C6) | 110-54-3.SEC | 10188491 | 99% | 2,514.7 µg/mL | +/- 86.8953 |
| 14 | 1,1-Dichloroethane | 75-34-3.SEC | 1026.30-3 | 98% | 2,512.6 µg/mL | +/- 86.8223 |
| 15 | 2,2-Dichloropropane | 594-20-7.SEC | GI01 | 99% | 2,521.5 µg/mL | +/- 87.1314 |
| 16 | trans-1,2-Dichloroethene | 156-60-5.SEC | L5QOH | 99% | 2,525.0 µg/mL | +/- 87.2523 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 17 | Isobutanol (2-Methyl-1-propanol) | 78-83-1.SEC | PH2XK | 99% | 62,830.8 | µg/mL | +/- 2,171.1398 |
| 18 | Chloroform | 67-66-3.SEC | 1297547 | 99% | 2,511.7 | µg/mL | +/- 86.7916 |
| 19 | Bromochloromethane | 74-97-5 * | 230206JLM | 99% | 2,515.7 | µg/mL | +/- 86.9298 |
| 20 | Tetrahydrofuran | 109-99-9.SEC | 3NYHE | 99% | 5,018.5 | µg/mL | +/- 173.4162 |
| 21 | 1,1,1-Trichloroethane | 71-55-6.SEC | 13891800 | 99% | 2,506.5 | µg/mL | +/- 86.6130 |
| 22 | Cyclohexane | 110-82-7.SEC | YADRA | 99% | 2,523.3 | µg/mL | +/- 87.1947 |
| 23 | 1,1-Dichloropropene | 563-58-6.SEC | 556500 | 99% | 2,520.5 | µg/mL | +/- 87.0968 |
| 24 | Carbon tetrachloride | 56-23-5.SEC | 11466 | 99% | 2,520.5 | µg/mL | +/- 87.0968 |
| 25 | n-Heptane (C7) | 142-82-5.SEC | TFHUC | 99% | 2,516.5 | µg/mL | +/- 86.9586 |
| 26 | 1,2-Dichloroethane | 107-06-2.SEC | 00016165 | 99% | 2,519.8 | µg/mL | +/- 87.0738 |
| 27 | Benzene | 71-43-2.SEC | 101960P29K | 99% | 2,518.8 | µg/mL | +/- 87.0392 |
| 28 | Trichloroethene | 79-01-6.SEC | H04X050 | 99% | 2,524.3 | µg/mL | +/- 87.2293 |
| 29 | Methylcyclohexane | 108-87-2.SEC | Q02QG | 99% | 2,515.8 | µg/mL | +/- 86.9356 |
| 30 | 1,2-Dichloropropane | 78-87-5.SEC | ERRBI-RH | 99% | 2,516.8 | µg/mL | +/- 86.9701 |
| 31 | 1,4-Dioxane | 123-91-1.SEC | QHRWO | 99% | 50,137.2 | µg/mL | +/- 1,732.5061 |
| 32 | Dibromomethane | 74-95-3.SEC | MOKKJ | 99% | 2,516.3 | µg/mL | +/- 86.9528 |
| 33 | cis-1,3-Dichloropropene | 10061-01-5.SEC | ZZLXJ-TJ | 99% | 2,502.8 | µg/mL | +/- 86.4863 |
| 34 | Toluene | 108-88-3.SEC | YND2B-BD | 99% | 2,522.2 | µg/mL | +/- 87.1544 |
| 35 | Ethyl methacrylate | 97-63-2.SEC | AQSPO | 99% | 2,510.8 | µg/mL | +/- 86.7628 |
| 36 | trans-1,3-Dichloropropene | 10061-02-6.SEC | DMSL | 98% | 2,517.1 | µg/mL | +/- 86.9804 |
| 37 | 1,1,2-Trichloroethane | 79-00-5.SEC | 9245400 | 99% | 2,512.2 | µg/mL | +/- 86.8089 |
| 38 | 1,3-Dichloropropane | 142-28-9.SEC | IQCON | 99% | 2,519.3 | µg/mL | +/- 87.0565 |
| 39 | Tetrachloroethene | 127-18-4.SEC | F09W014 | 99% | 2,521.3 | µg/mL | +/- 87.1256 |
| 40 | Dibromochloromethane | 124-48-1.SEC | 10234064 | 99% | 2,517.5 | µg/mL | +/- 86.9932 |
| 41 | 1,2-Dibromoethane (EDB) | 106-93-4.SEC | 050675P15E | 99% | 2,518.3 | µg/mL | +/- 87.0220 |
| 42 | Chlorobenzene | 108-90-7.SEC | 1161936 | 99% | 2,515.8 | µg/mL | +/- 86.9356 |
| 43 | m-Xylene | 108-38-3.SEC | 7ZV6F | 99% | 1,255.3 | µg/mL | +/- 43.3814 |
| 44 | p-Xylene | 106-42-3.SEC | D6UOA | 99% | 1,260.3 | µg/mL | +/- 43.5541 |
| 45 | Ethylbenzene | 100-41-4.SEC | PI4SE | 99% | 2,517.7 | µg/mL | +/- 86.9989 |
| 46 | 1,1,1,2-Tetrachloroethane | 630-20-6.SEC | 13789800 | 99% | 2,517.5 | µg/mL | +/- 86.9932 |
| 47 | o-Xylene | 95-47-6.SEC | UJ6RI | 99% | 2,515.8 | µg/mL | +/- 86.9356 |
| 48 | Styrene | 100-42-5.SEC | QGQ7F | 99% | 2,521.3 | µg/mL | +/- 87.1256 |
| 49 | Isopropylbenzene (cumene) | 98-82-8.SEC | 7P24L | 99% | 2,515.0 | µg/mL | +/- 86.9068 |
| 50 | Bromoform | 75-25-2.SEC | 13723500 | 99% | 2,522.5 | µg/mL | +/- 87.1659 |
| 51 | Bromodichloromethane | 75-27-4.SEC | 28128 | 99% | 2,524.2 | µg/mL | +/- 87.2235 |
| 52 | 1,1,2,2-Tetrachloroethane | 79-34-5.SEC | BCCD5088 | 99% | 2,523.7 | µg/mL | +/- 87.2063 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 53 | 1,2,3-Trichloropropane | 96-18-4.SEC 6V2ED | 99% | 2,522.2 | µg/mL | +/- 87.1544 |
| 54 | trans-1,4-Dichloro-2-butene | 110-57-6.SEC RD230316RSR | 96% | 2,517.0 | µg/mL | +/- 86.9745 |
| 55 | n-Propylbenzene | 103-65-1.SEC XCGEC | 99% | 2,518.8 | µg/mL | +/- 87.0392 |
| 56 | Bromobenzene | 108-86-1.SEC 2FUHG-EM | 99% | 2,518.3 | µg/mL | +/- 87.0220 |
| 57 | 1,3,5-Trimethylbenzene | 108-67-8.SEC GI2SM | 99% | 2,514.3 | µg/mL | +/- 86.8837 |
| 58 | 2-Chlorotoluene | 95-49-8.SEC BRHPM | 99% | 2,515.7 | µg/mL | +/- 86.9298 |
| 59 | 4-Chlorotoluene | 106-43-4.SEC S5SKD | 99% | 2,518.8 | µg/mL | +/- 87.0392 |
| 60 | tert-Butylbenzene | 98-06-6.SEC D6OHC | 99% | 2,522.0 | µg/mL | +/- 87.1487 |
| 61 | 1,2,4-Trimethylbenzene | 95-63-6.SEC JHZDD | 99% | 2,517.3 | µg/mL | +/- 86.9874 |
| 62 | sec-Butylbenzene | 135-98-8.SEC O4HRF | 99% | 2,522.0 | µg/mL | +/- 87.1487 |
| 63 | 4-Isopropyltoluene (p-cymene) | 99-87-6.SEC 13889300 | 98% | 2,518.1 | µg/mL | +/- 87.0142 |
| 64 | 1,3-Dichlorobenzene | 541-73-1.SEC ZA2ZI | 99% | 2,515.0 | µg/mL | +/- 86.9068 |
| 65 | 1,4-Dichlorobenzene | 106-46-7.SEC J5GVD | 99% | 2,522.5 | µg/mL | +/- 87.1659 |
| 66 | n-Butylbenzene | 104-51-8.SEC MMPGA | 99% | 2,523.7 | µg/mL | +/- 87.2063 |
| 67 | 1,2-Dichlorobenzene | 95-50-1.SEC R6QDM | 99% | 2,512.0 | µg/mL | +/- 86.8031 |
| 68 | 1,2-Dibromo-3-chloropropane | 96-12-8.SEC Q135-105 | 99% | 2,517.7 | µg/mL | +/- 86.9989 |
| 69 | 1,2,4-Trichlorobenzene | 120-82-1.SEC IGLFA | 99% | 2,515.7 | µg/mL | +/- 86.9298 |
| 70 | Hexachlorobutadiene | 87-68-3.SEC 13889400 | 97% | 2,520.4 | µg/mL | +/- 87.0928 |
| 71 | Naphthalene | 91-20-3.SEC AM5NG | 99% | 2,520.0 | µg/mL | +/- 87.0795 |
| 72 | 1,2,3-Trichlorobenzene | 87-61-6.SEC A0043055 | 99% | 2,517.8 | µg/mL | +/- 87.0047 |

* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

# 8260D

## Volatile Organic Compounds by GC/MS

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

| Client Sample ID | Lab Sample ID | DBFM # | DCA # | TOL # | BFB # |
|---|---|---|---|---|---|
| HR-4/091123/ | 240-191865-1 | 100 | 93 | 94 | 92 |
| W-2-N/091123/ | 240-191865-2 | 101 | 93 | 95 | 92 |
| W-3-N/091123/ | 240-191865-3 | 99 | 93 | 94 | 92 |
| W-4-N/091123/ | 240-191865-4 | 101 | 95 | 94 | 89 |
| EB-01/091123/ | 240-191865-5 | 100 | 94 | 96 | 91 |
| TB-01/091123/ | 240-191865-6 | 97 | 93 | 92 | 90 |
| | MB 240-587660/7 | 96 | 92 | 94 | 92 |
| | LCS 240-587660/4 | 99 | 88 | 95 | 96 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 73-120 |
| DCA = 1,2-Dichloroethane-d4 (Surr) | 62-137 |
| TOL = Toluene-d8 (Surr) | 78-122 |
| BFB = 4-Bromofluorobenzene (Surr) | 56-136 |

# Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 101506.D

Lab ID: LCS 240-587660/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 25.0 | 23.7 | 95 | 64-131 | |
| 1,1-Dichloroethane | 25.0 | 24.1 | 96 | 72-127 | |
| 1,1-Dichloroethene | 25.0 | 25.6 | 103 | 63-134 | |
| Benzene | 25.0 | 24.2 | 97 | 77-123 | |
| cis-1,2-Dichloroethene | 25.0 | 25.2 | 101 | 77-123 | |
| Ethylbenzene | 25.0 | 26.2 | 105 | 80-121 | |
| m-Xylene & p-Xylene | 25.0 | 25.6 | 103 | 80-120 | |
| o-Xylene | 25.0 | 25.3 | 101 | 80-123 | |
| Tetrachloroethene | 25.0 | 24.6 | 99 | 76-123 | |
| Toluene | 25.0 | 23.3 | 93 | 80-123 | |
| trans-1,2-Dichloroethene | 25.0 | 24.4 | 98 | 75-124 | |
| Trichloroethene | 25.0 | 24.8 | 99 | 70-122 | |
| Vinyl chloride | 12.5 | 8.40 | 67 | 60-144 | |
| Xylenes, Total | 50.0 | 50.9 | 102 | 80-121 | |

# Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Cleveland  Job No.: 240-191865-1

SDG No.:

Lab File ID: 101509.D  Lab Sample ID: MB 240-587660/7

Matrix: Water  Heated Purge:(Y/N) N

Instrument ID: A3UX10  Date Analyzed: 09/19/2023 12:31

GC Column: DB-624  ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 240-587660/4 | 101506.D | 09/19/2023 11:17 |
| HR-4/091123/ | 240-191865-1 | 101522.D | 09/19/2023 17:53 |
| W-2-N/091123/ | 240-191865-2 | 101523.D | 09/19/2023 18:18 |
| W-3-N/091123/ | 240-191865-3 | 101524.D | 09/19/2023 18:43 |
| W-4-N/091123/ | 240-191865-4 | 101525.D | 09/19/2023 19:07 |
| EB-01/091123/ | 240-191865-5 | 101526.D | 09/19/2023 19:32 |
| TB-01/091123/ | 240-191865-6 | 101527.D | 09/19/2023 19:56 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab File ID: BFB10059.D BFB Injection Date: 08/10/2023

Instrument ID: A3UX10 BFB Injection Time: 14:37

Analysis Batch No.: 583544

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 27.1 | |
| 75 | 30.0 - 60.0 % of mass 95 | 52.9 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.9 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | Greater than 50% of mass 95 | 74.4 | |
| 175 | 5.0 - 9.0 % of mass 174 | 5.5 | (7.4) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 73.4 | (98.6) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 4.8 | (6.5) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | IC 240-583544/3 | 10-0600.D | 08/10/2023 | 15:15 |
| | IC 240-583544/4 | 10-0601.D | 08/10/2023 | 15:41 |
| | IC 240-583544/5 | 10-0602.D | 08/10/2023 | 16:06 |
| | IC 240-583544/6 | 10-0603.D | 08/10/2023 | 16:31 |
| | IC 240-583544/7 | 10-0604.D | 08/10/2023 | 16:56 |
| | ICIS 240-583544/8 | 10-0605.D | 08/10/2023 | 17:21 |
| | IC 240-583544/9 | 10-0606.D | 08/10/2023 | 17:46 |
| | IC 240-583544/10 | 10-0607.D | 08/10/2023 | 18:11 |
| | IC 240-583544/11 | 10-0608.D | 08/10/2023 | 18:36 |
| | ICV 240-583544/14 | 10-0611.D | 08/10/2023 | 19:51 |
| | ICV 240-583544/28 | 10-0624.D | 08/11/2023 | 1:17 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Cleveland  Job No.: 240-191865-1

SDG No.:

Lab File ID: 10087.D  BFB Injection Date: 09/19/2023

Instrument ID: A3UX10  BFB Injection Time: 09:53

Analysis Batch No.: 587660

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 26.5 | |
| 75 | 30.0 - 60.0 % of mass 95 | 51.5 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.6 | |
| 173 | Less than 2.0 % of mass 174 | 0.0 | (0.0) 1 |
| 174 | Greater than 50% of mass 95 | 84.7 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.1 | (7.2) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 82.6 | (97.5) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 5.2 | (6.2) 2 |

1-Value is % mass 174  2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCV 240-587660/2 | 101504.D | 09/19/2023 | 10:27 |
| | CCVIS 240-587660/3 | 101505.D | 09/19/2023 | 10:52 |
| | LCS 240-587660/4 | 101506.D | 09/19/2023 | 11:17 |
| | MB 240-587660/7 | 101509.D | 09/19/2023 | 12:31 |
| HR-4/091123/ | 240-191865-1 | 101522.D | 09/19/2023 | 17:53 |
| W-2-N/091123/ | 240-191865-2 | 101523.D | 09/19/2023 | 18:18 |
| W-3-N/091123/ | 240-191865-3 | 101524.D | 09/19/2023 | 18:43 |
| W-4-N/091123/ | 240-191865-4 | 101525.D | 09/19/2023 | 19:07 |
| EB-01/091123/ | 240-191865-5 | 101526.D | 09/19/2023 | 19:32 |
| TB-01/091123/ | 240-191865-6 | 101527.D | 09/19/2023 | 19:56 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Cleveland  Job No.: 240-191865-1

SDG No.:

Sample No.: ICIS 240-583544/8  Date Analyzed: 08/10/2023 17:21

Instrument ID: A3UX10  GC Column: DB-624  ID: 0.18(mm)

Lab File ID (Standard): 10-0605.D  Heated Purge: (Y/N) N

Calibration ID: 71482

| | | FB | | CBNZd5 | | DCBd4 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 647489 | 5.71 | 506622 | 8.45 | 301796 | 10.72 |
| UPPER LIMIT | | 1294978 | 6.21 | 1013244 | 8.95 | 603592 | 11.22 |
| LOWER LIMIT | | 323745 | 5.21 | 253311 | 7.95 | 150898 | 10.22 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 240-583544/14 | | 649032 | 5.71 | 517880 | 8.45 | 308780 | 10.72 |
| ICV 240-583544/28 | | 653483 | 5.72 | 502907 | 8.45 | 296045 | 10.72 |
| CCVIS 240-587660/3 | | 600890 | 5.71 | 494193 | 8.44 | 271616 | 10.71 |

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Sample No.: CCVIS 240-587660/3 Date Analyzed: 09/19/2023 10:52

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 101505.D Heated Purge: (Y/N) N

Calibration ID: 71484

| | | FB | | CBNZd5 | | DCBd4 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 600890 | 5.71 | 494193 | 8.44 | 271616 | 10.71 |
| UPPER LIMIT | | 1201780 | 6.21 | 988386 | 8.94 | 543232 | 11.21 |
| LOWER LIMIT | | 300445 | 5.21 | 247097 | 7.94 | 135808 | 10.21 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| LCS 240-587660/4 | | 604320 | 5.70 | 485438 | 8.44 | 272920 | 10.71 |
| MB 240-587660/7 | | 578180 | 5.70 | 465455 | 8.44 | 249658 | 10.71 |
| 240-191865-1 | HR-4/091123/ | 552128 | 5.71 | 447619 | 8.44 | 231075 | 10.71 |
| 240-191865-2 | W-2-N/091123/ | 551264 | 5.71 | 443689 | 8.44 | 232271 | 10.71 |
| 240-191865-3 | W-3-N/091123/ | 545185 | 5.71 | 442099 | 8.45 | 239665 | 10.71 |
| 240-191865-4 | W-4-N/091123/ | 545610 | 5.70 | 450746 | 8.44 | 234425 | 10.71 |
| 240-191865-5 | EB-01/091123/ | 549777 | 5.70 | 448346 | 8.44 | 234965 | 10.71 |
| 240-191865-6 | TB-01/091123/ | 547488 | 5.71 | 455765 | 8.44 | 233335 | 10.71 |

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: HR-4/091123/ | Lab Sample ID: 240-191865-1

Matrix: Water | Lab File ID: 101522.D

Analysis Method: 8260D | Date Collected: 09/11/2023 12:35

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 17:53

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 2.0 | | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.5 | | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 0.73 | J | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 0.44 | J | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 93 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 92 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101522.D
Lims ID: 240-191865-A-1
Client ID: HR-4/091123/
Sample Type: Client
Inject. Date: 19-Sep-2023 17:53:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-020
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:10

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * | 1 Fluorobenzene | 96 | 5.714 | 5.714 | 0.000 | 98 | 552128 | 10.0 | |
| * | 2 Chlorobenzene-d5 | 117 | 8.435 | 8.436 | -0.001 | 92 | 447619 | 10.0 | |
| * | 3 1,4-Dichlorobenzene-d4 | 152 | 10.707 | 10.708 | -0.001 | 97 | 231075 | 10.0 | |
| $ | 4 Dibromofluoromethane (Surr) | 113 | 5.134 | 5.135 | -0.001 | 93 | 140604 | 9.31 | |
| $ | 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.430 | 0.000 | 95 | 186086 | 8.67 | |
| $ | 6 Toluene-d8 (Surr) | 98 | 7.098 | 7.099 | -0.001 | 94 | 519495 | 8.76 | |
| $ | 7 4-Bromofluorobenzene (Surr) | 95 | 9.571 | 9.572 | -0.001 | 89 | 224394 | 8.62 | |
| | 11 Vinyl chloride | 62 | | 1.940 | | | | ND | |
| | 19 1,1-Dichloroethene | 96 | | 3.099 | | | | ND | |
| | 30 trans-1,2-Dichloroethene | 96 | 3.821 | 3.809 | 0.012 | 90 | 2367 | 0.1389 | |
| | 34 1,1-Dichloroethane | 63 | 4.211 | 4.212 | -0.001 | 97 | 54004 | 1.50 | |
| | 40 cis-1,2-Dichloroethene | 96 | 4.708 | 4.709 | -0.001 | 87 | 13197 | 0.7312 | |
| | 48 1,1,1-Trichloroethane | 97 | 5.146 | 5.146 | 0.000 | 96 | 54864 | 1.99 | |
| | 53 Benzene | 78 | | 5.454 | | | | ND | 7 |
| | 58 Trichloroethene | 130 | 6.021 | 6.022 | -0.001 | 93 | 7497 | 0.4423 | |
| | 70 Toluene | 91 | | 7.158 | | | | ND | 7 |
| | 74 Tetrachloroethene | 164 | 7.631 | 7.631 | 0.000 | 94 | 3060 | 0.2224 | |
| | 84 Ethylbenzene | 106 | | 8.554 | | | | ND | |
| | 85 m-Xylene & p-Xylene | 106 | | 8.673 | | | | ND | 7 |
| | 86 o-Xylene | 106 | | 9.051 | | | | ND | |
| S | 130 Xylenes, Total | 106 | | 16.705 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

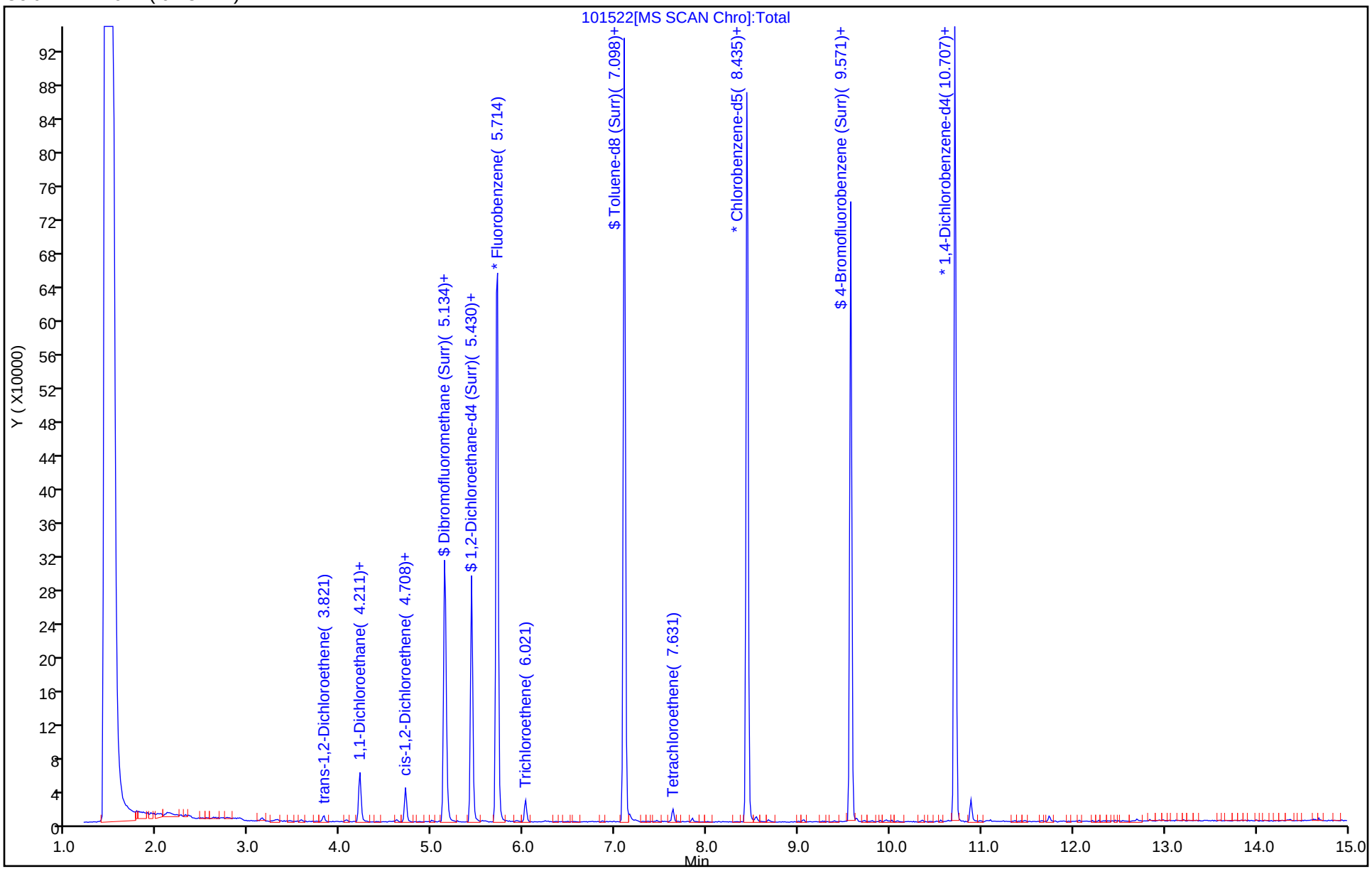
Report Date: 20-Sep-2023 08:25:03 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101522.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 17:53:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | 240-191865-A-1 | Lab Sample ID: | 240-191865-1 | Worklist Smp#: | 20 |
| Client ID: | HR-4/091123/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101522.D
Lims ID: 240-191865-A-1
Client ID: HR-4/091123/
Sample Type: Client
Inject. Date: 19-Sep-2023 17:53:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-020
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:10

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 9.31 | 99.73 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.67 | 92.82 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.76 | 93.79 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.62 | 92.26 |

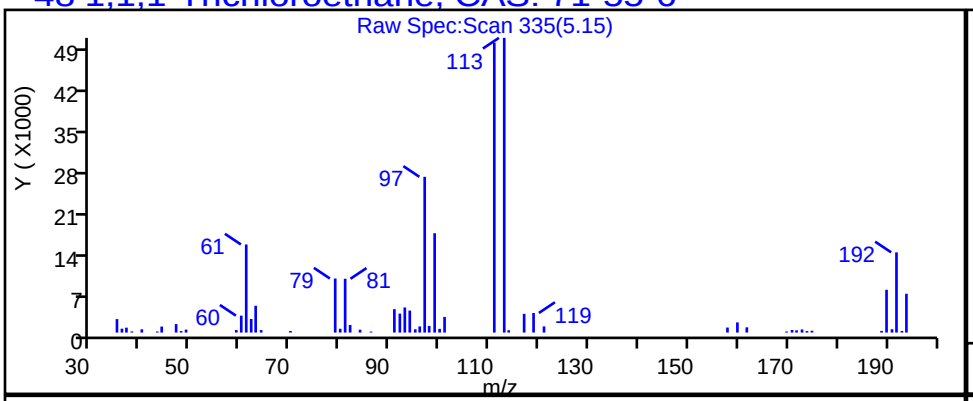
Report Date: 20-Sep-2023 08:25:03 Chrom Revision: 2.3 21-Aug-2023 17:14:06

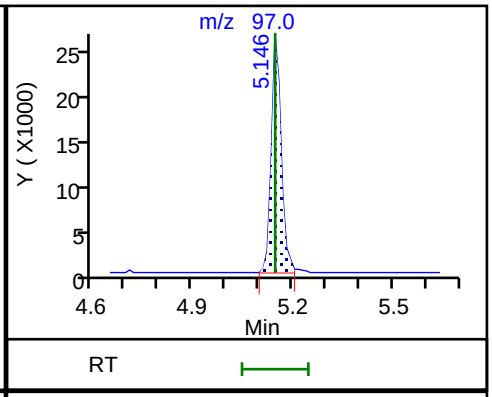
Eurofins Cleveland

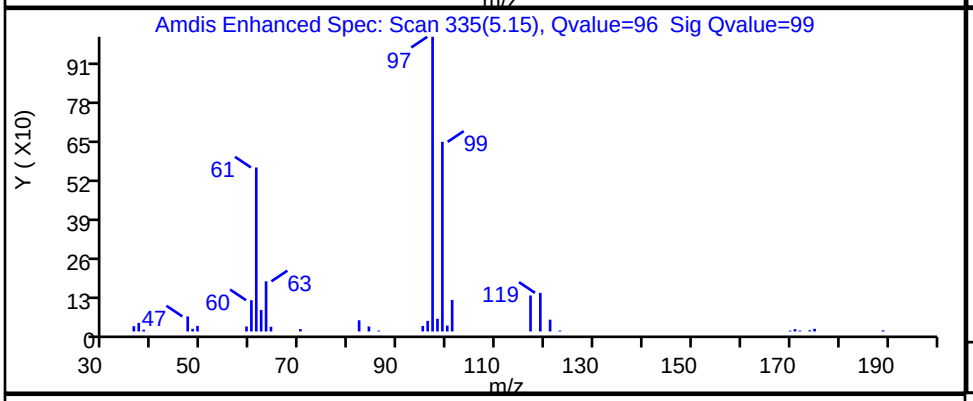
Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101522.D

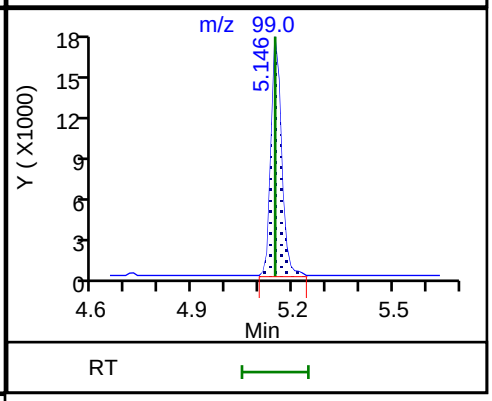
| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 17:53:30 | Instrument ID: | A3UX10 | | |
| Lims ID: | 240-191865-A-1 | Lab Sample ID: | 240-191865-1 | | |
| Client ID: | HR-4/091123/ | | | | |
| Operator ID: | 434006 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

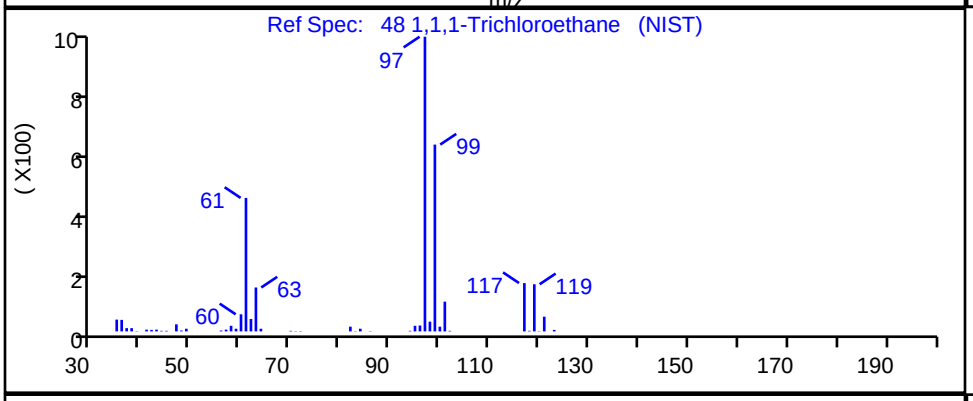
## 48 1,1,1-Trichloroethane, CAS: 71-55-6

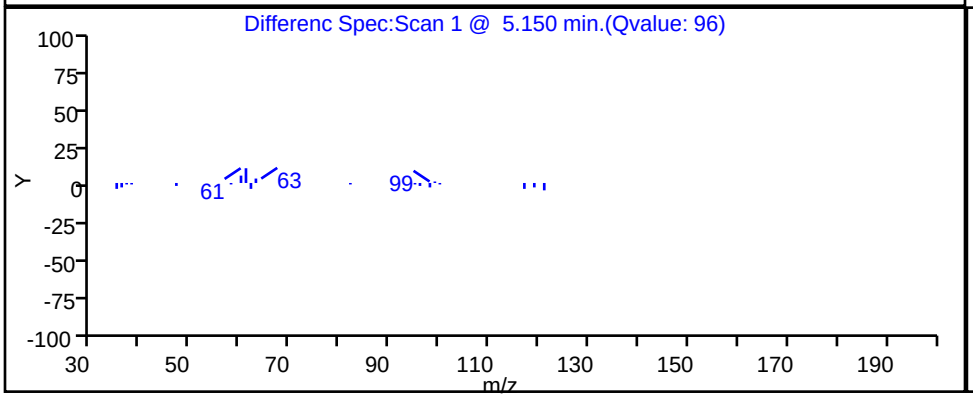


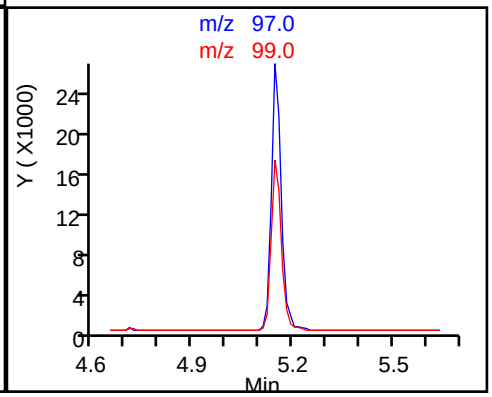



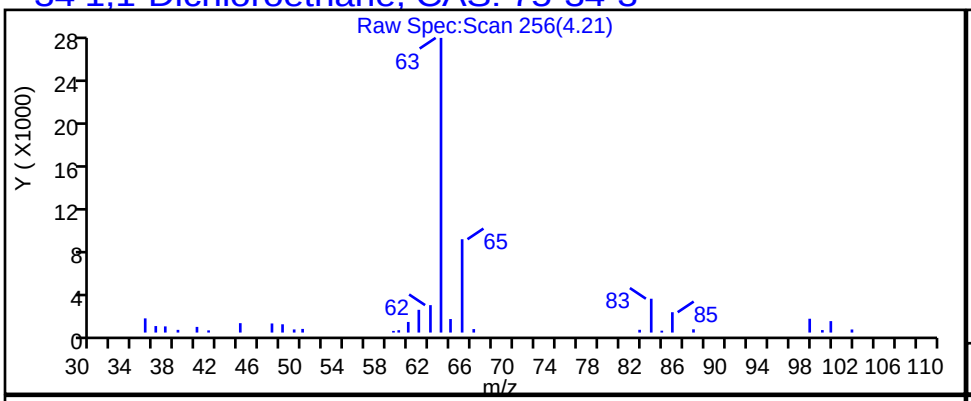



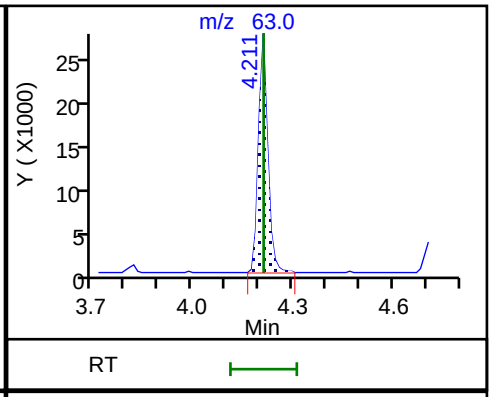



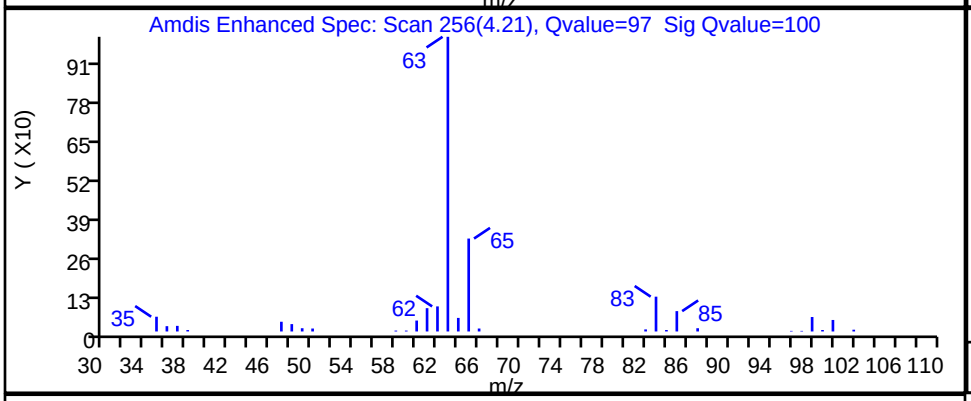
Eurofins Cleveland

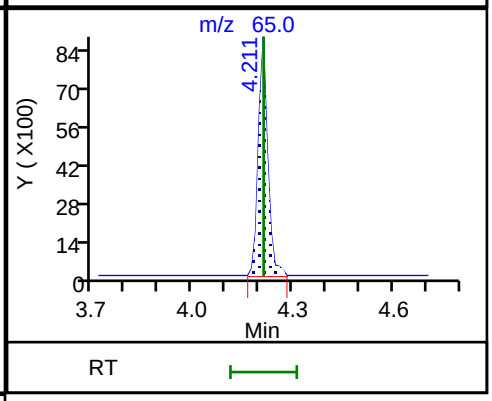
Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101522.D
Injection Date: 19-Sep-2023 17:53:30 Instrument ID: A3UX10
Lims ID: 240-191865-A-1 Lab Sample ID: 240-191865-1
Client ID: HR-4/091123/
Operator ID: 434006 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

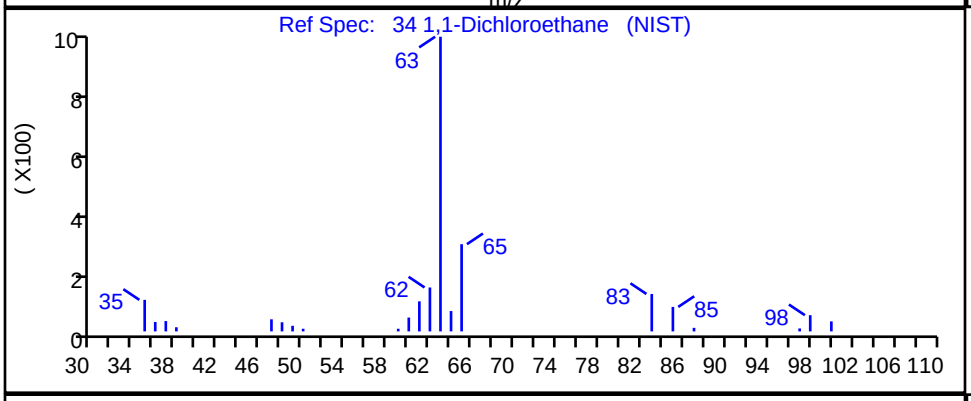
## 34 1,1-Dichloroethane, CAS: 75-34-3

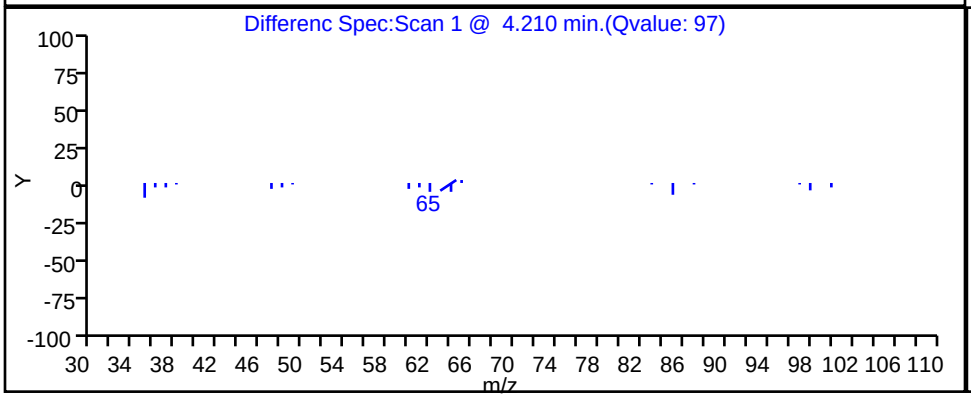


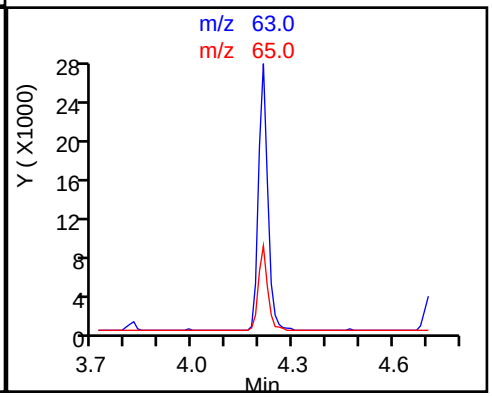



Report Date: 20-Sep-2023 08:25:03 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101522.D

Injection Date: 19-Sep-2023 17:53:30 Instrument ID: A3UX10

Lims ID: 240-191865-A-1 Lab Sample ID: 240-191865-1

Client ID: HR-4/091123/

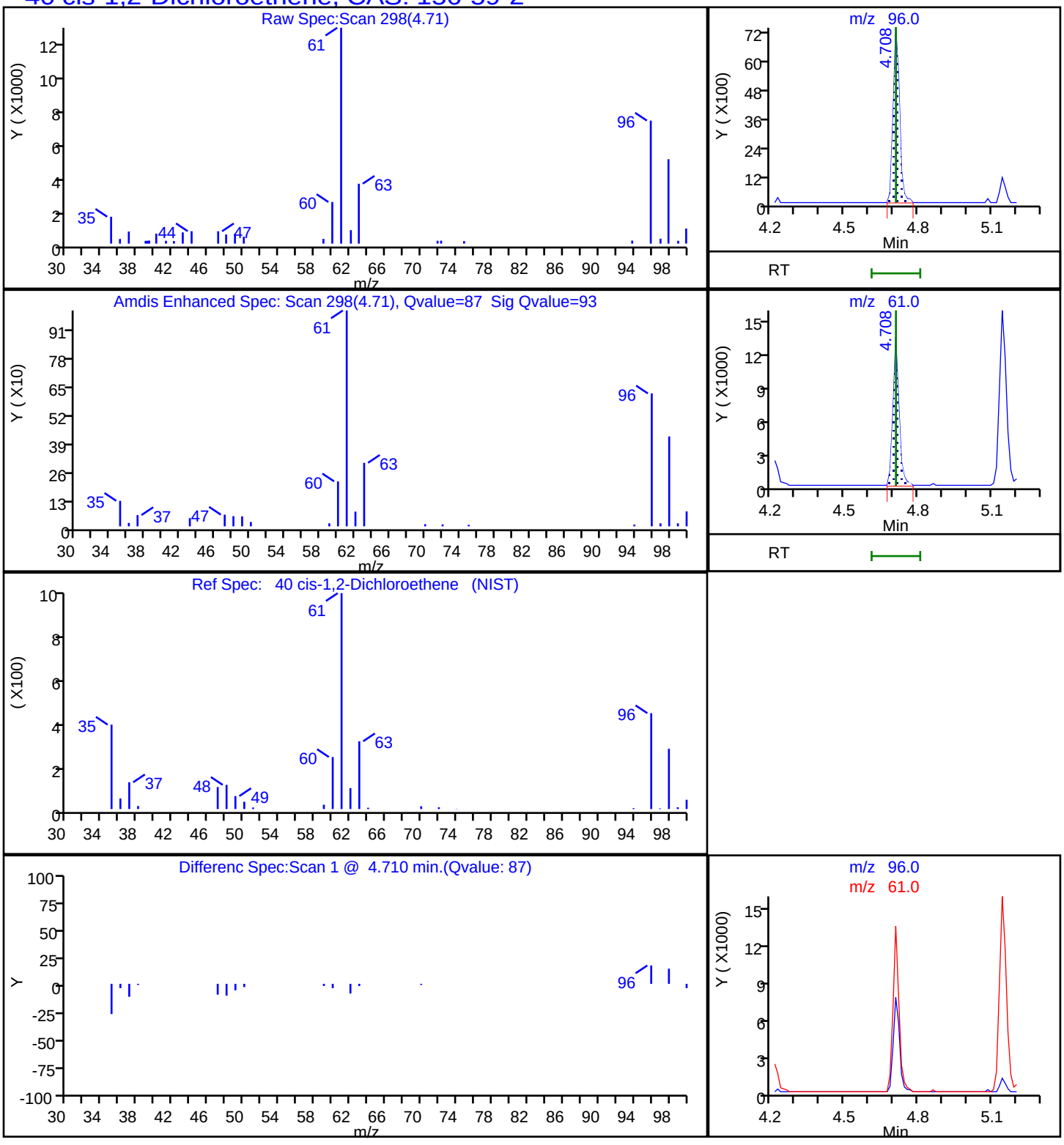
Operator ID: 434006 ALS Bottle#: 19 Worklist Smp#: 20

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: 8260_10 Limit Group: MSV 8260C ICAL

Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 40 cis-1,2-Dichloroethene, CAS: 156-59-2



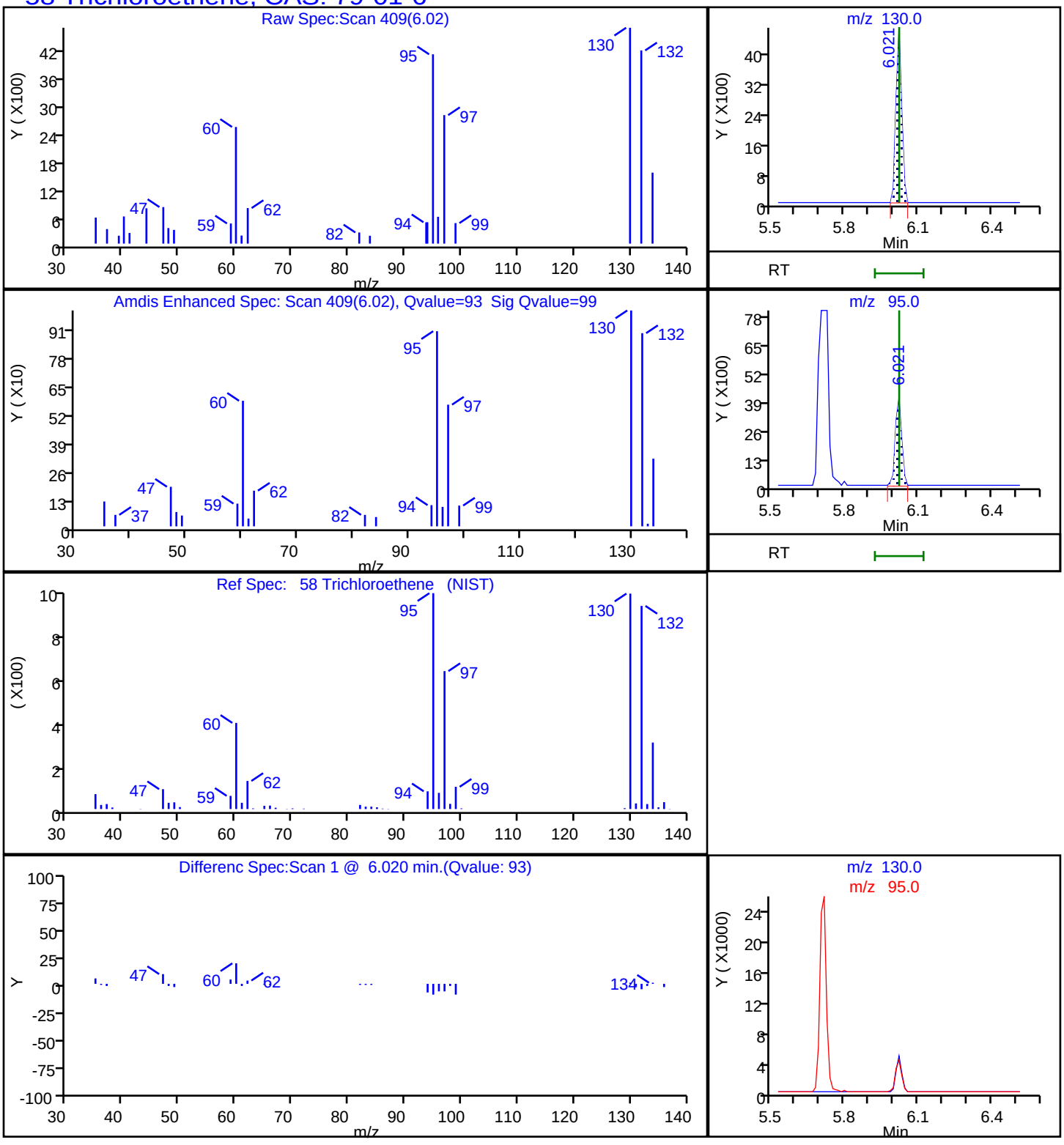
Report Date: 20-Sep-2023 08:25:03 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101522.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 17:53:30 | Instrument ID: | A3UX10 | | |
| Lims ID: | 240-191865-A-1 | Lab Sample ID: | 240-191865-1 | | |
| Client ID: | HR-4/091123/ | | | | |
| Operator ID: | 434006 | ALS Bottle#: | 19 | Worklist Smp#: | 20 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 58 Trichloroethene, CAS: 79-01-6






02/07/2024

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: W-2-N/091123/ | Lab Sample ID: 240-191865-2

Matrix: Water | Lab File ID: 101523.D

Analysis Method: 8260D | Date Collected: 09/11/2023 10:40

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 18:18

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.7 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 0.55 | J | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 93 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 92 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101523.D
Lims ID: 240-191865-A-2
Client ID: W-2-N/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 18:18:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-021
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:20

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.714 | 5.714 | 0.000 | 98 | 551264 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.435 | 8.436 | -0.001 | 93 | 443689 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.707 | 10.708 | -0.001 | 97 | 232271 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.134 | 5.135 | -0.001 | 93 | 142063 | 9.43 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.430 | 0.000 | 97 | 186564 | 8.71 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.098 | 7.099 | -0.001 | 95 | 520570 | 8.86 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.571 | 9.572 | -0.001 | 89 | 221002 | 8.56 | |
| 11 Vinyl chloride | 62 | | 1.940 | | | | ND | 7 |
| 19 1,1-Dichloroethene | 96 | | 3.099 | | | | ND | |
| 30 trans-1,2-Dichloroethene | 96 | 3.809 | 3.809 | 0.000 | 89 | 2303 | 0.1353 | |
| 34 1,1-Dichloroethane | 63 | | 4.212 | | | | ND | 7 |
| 40 cis-1,2-Dichloroethene | 96 | 4.708 | 4.709 | -0.001 | 88 | 30180 | 1.67 | |
| 48 1,1,1-Trichloroethane | 97 | | 5.146 | | | | ND | 7 |
| 53 Benzene | 78 | | 5.454 | | | | ND | 7 |
| 58 Trichloroethene | 130 | 6.021 | 6.022 | -0.001 | 94 | 9370 | 0.5537 | |
| 70 Toluene | 91 | | 7.158 | | | | ND | 7 |
| 74 Tetrachloroethene | 164 | | 7.631 | | | | ND | 7 |
| 84 Ethylbenzene | 106 | | 8.554 | | | | ND | |
| 85 m-Xylene & p-Xylene | 106 | | 8.673 | | | | ND | |
| 86 o-Xylene | 106 | | 9.051 | | | | ND | |
| S 130 Xylenes, Total | 106 | | 16.705 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

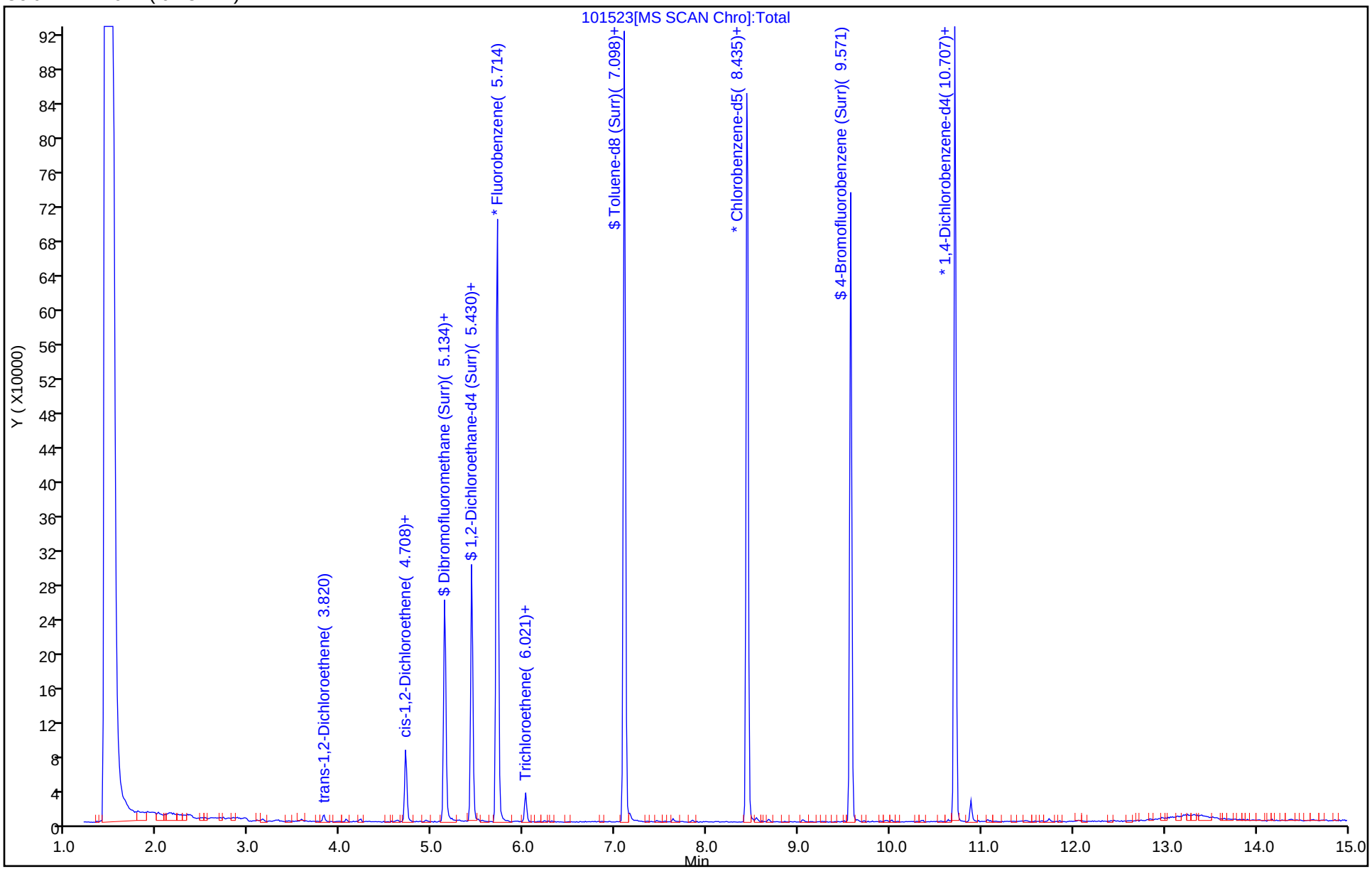
Report Date: 20-Sep-2023 08:25:04 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101523.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 18:18:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | 240-191865-A-2 | Lab Sample ID: | 240-191865-2 | Worklist Smp#: | 21 |
| Client ID: | W-2-N/091123 | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101523.D
Lims ID: 240-191865-A-2
Client ID: W-2-N/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 18:18:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-021
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:20

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 9.43 | 100.92 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.71 | 93.21 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.86 | 94.82 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.56 | 91.67 |

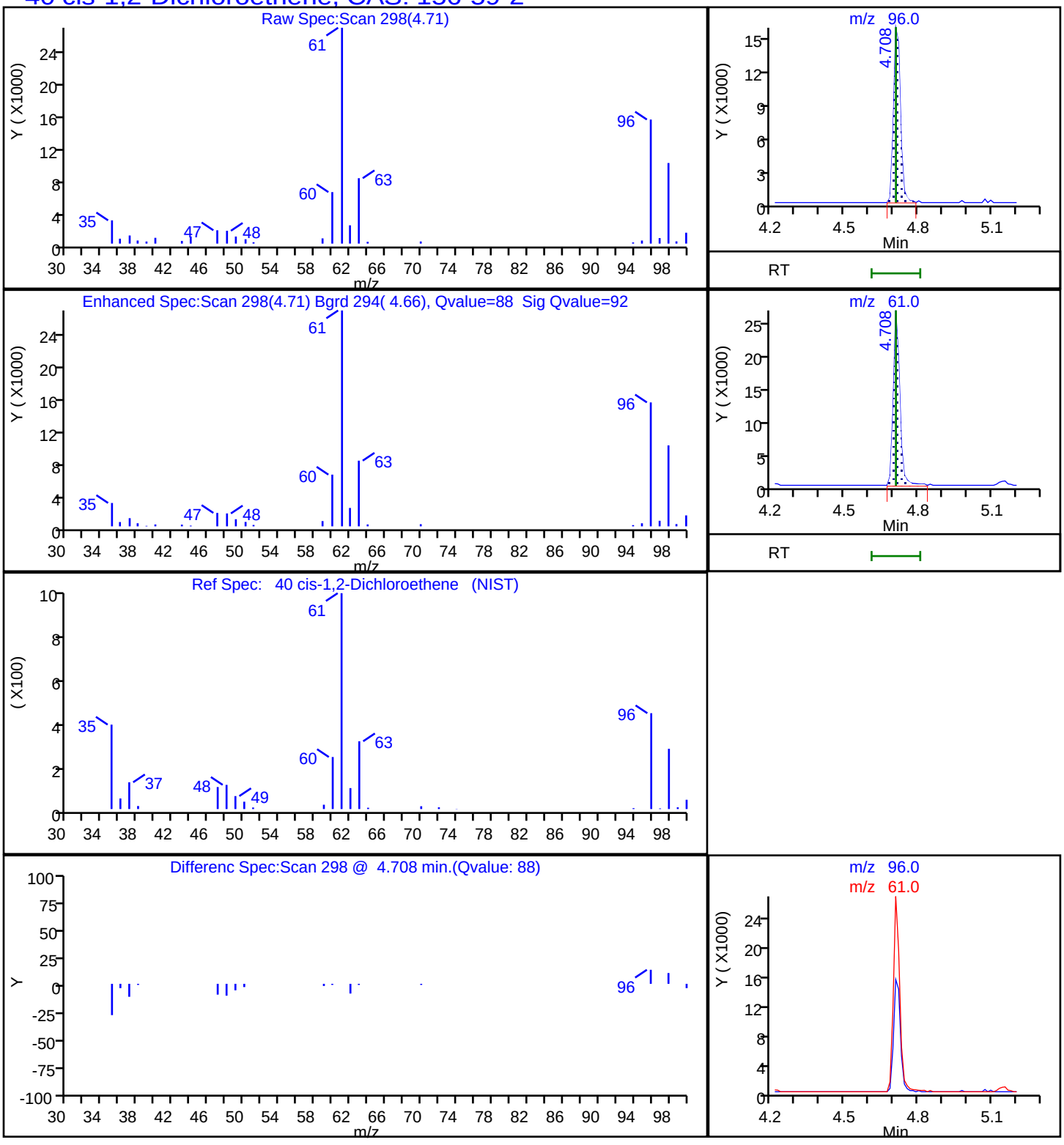
Report Date: 20-Sep-2023 08:25:04 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101523.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 18:18:30 | Instrument ID: | A3UX10 | | |
| Lims ID: | 240-191865-A-2 | Lab Sample ID: | 240-191865-2 | | |
| Client ID: | W-2-N/091123 | | | | |
| Operator ID: | 434006 | ALS Bottle#: | 20 | Worklist Smp#: | 21 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

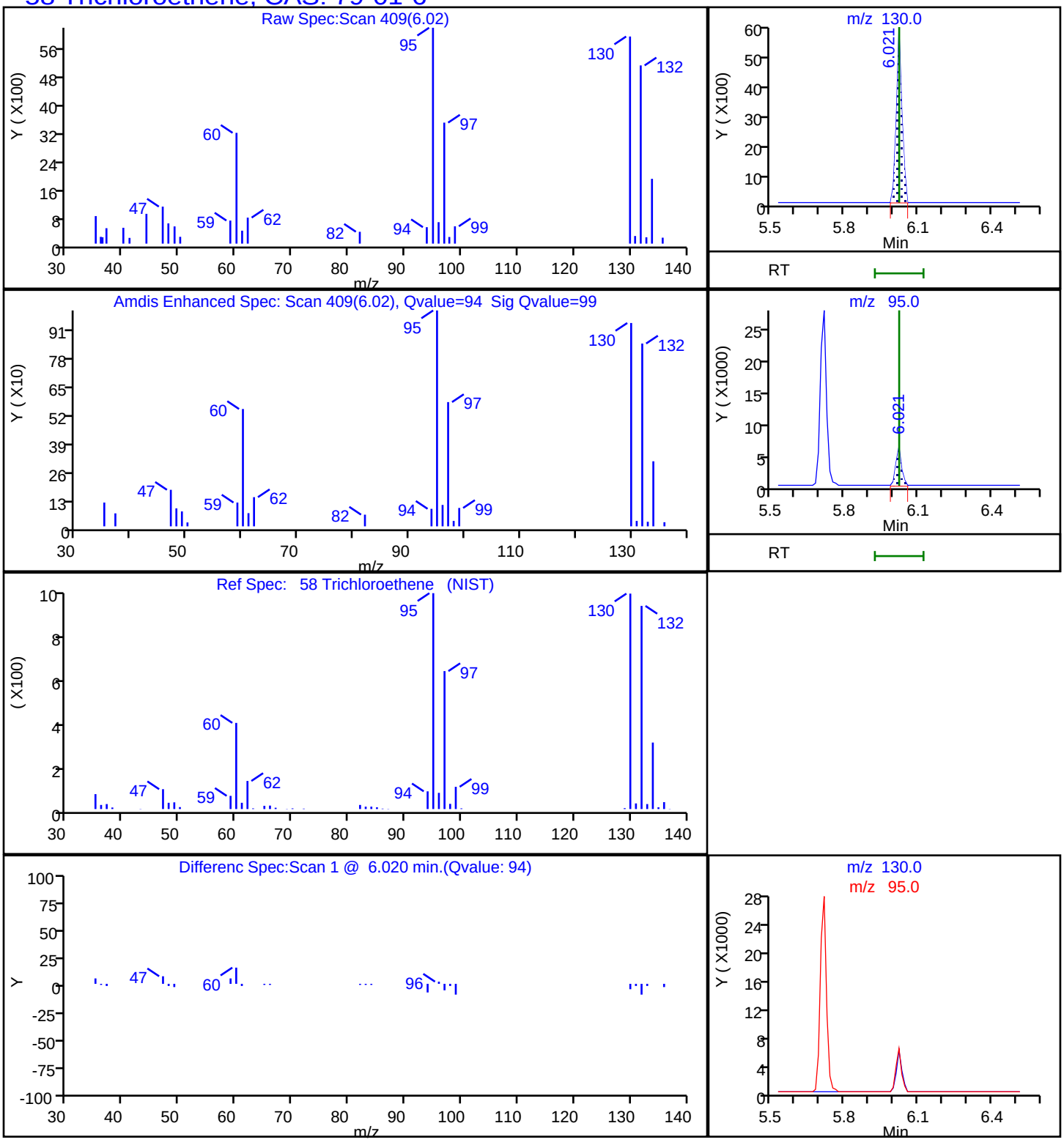
## 40 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101523.D
Injection Date: 19-Sep-2023 18:18:30 Instrument ID: A3UX10
Lims ID: 240-191865-A-2 Lab Sample ID: 240-191865-2
Client ID: W-2-N/091123
Operator ID: 434006 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 58 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: W-3-N/091123/ | Lab Sample ID: 240-191865-3

Matrix: Water | Lab File ID: 101524.D

Analysis Method: 8260D | Date Collected: 09/11/2023 16:45

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 18:43

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 13 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 0.71 | J | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 93 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 92 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101524.D
Lims ID: 240-191865-B-3
Client ID: W-3-N/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 18:43:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-022
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:30

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.713 | 5.714 | -0.001 | 98 | 545185 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.446 | 8.436 | 0.010 | 90 | 442099 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.707 | 10.708 | -0.001 | 97 | 239665 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.133 | 5.135 | -0.002 | 93 | 137841 | 9.25 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.429 | 5.430 | -0.001 | 96 | 184789 | 8.72 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.098 | 7.099 | -0.001 | 95 | 515500 | 8.80 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.571 | 9.572 | -0.001 | 87 | 220183 | 8.56 | |
| 11 Vinyl chloride | 62 | 1.938 | 1.940 | -0.002 | 97 | 19881 | 0.7062 | |
| 19 1,1-Dichloroethene | 96 | | 3.099 | | | | ND | |
| 30 trans-1,2-Dichloroethene | 96 | 3.820 | 3.809 | 0.011 | 93 | 5055 | 0.3003 | |
| 34 1,1-Dichloroethane | 63 | | 4.212 | | | | ND | |
| 40 cis-1,2-Dichloroethene | 96 | 4.707 | 4.709 | -0.002 | 88 | 236032 | 13.2 | |
| 48 1,1,1-Trichloroethane | 97 | | 5.146 | | | | ND | |
| 53 Benzene | 78 | | 5.454 | | | | ND | 7 |
| 58 Trichloroethene | 130 | | 6.022 | | | | ND | 7 |
| 70 Toluene | 91 | | 7.158 | | | | ND | 7 |
| 74 Tetrachloroethene | 164 | 7.630 | 7.631 | -0.001 | 84 | 2033 | 0.1496 | |
| 84 Ethylbenzene | 106 | | 8.554 | | | | ND | |
| 85 m-Xylene & p-Xylene | 106 | | 8.673 | | | | ND | |
| 86 o-Xylene | 106 | | 9.051 | | | | ND | |
| S 130 Xylenes, Total | 106 | | 16.705 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

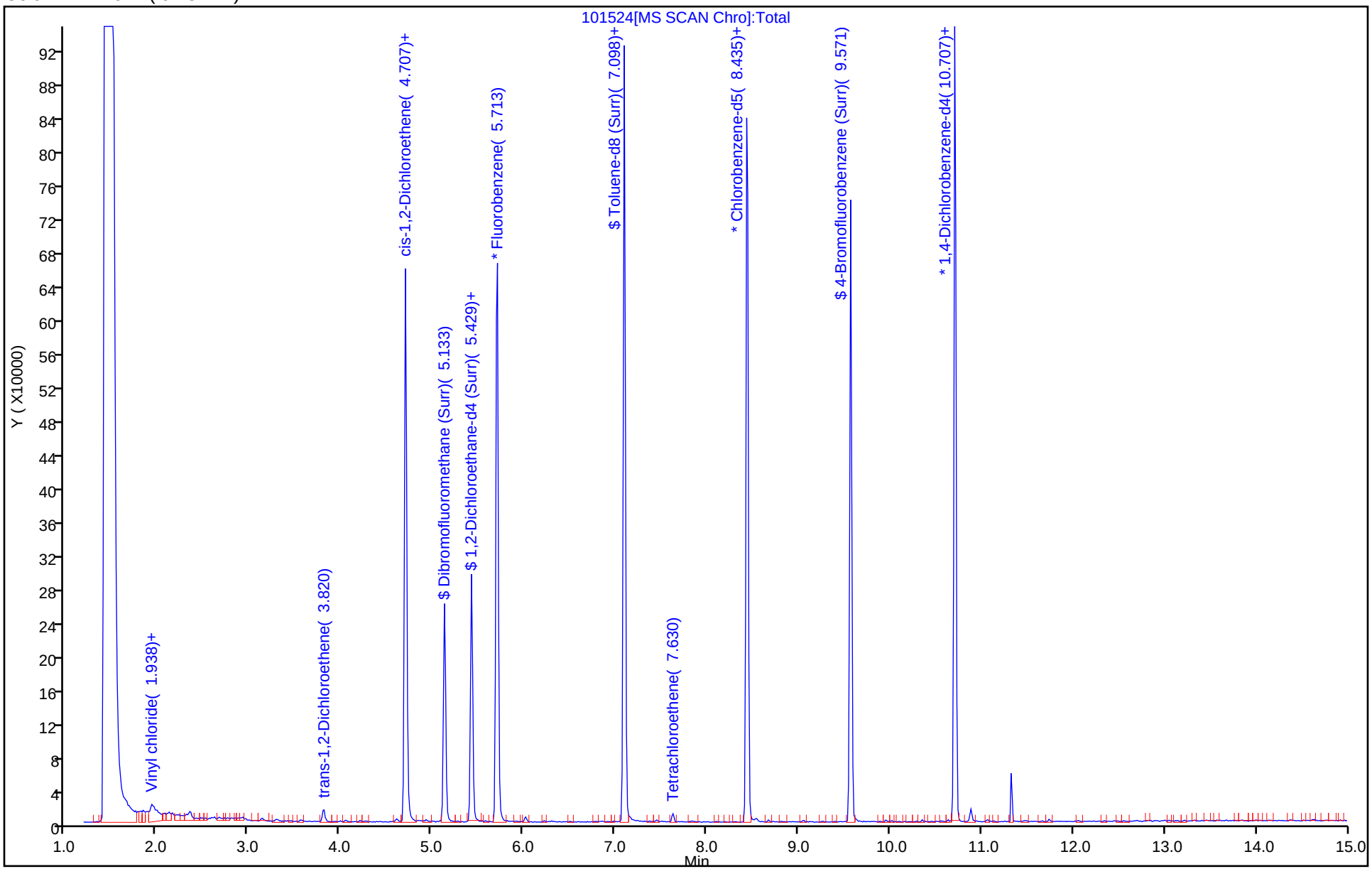
Report Date: 20-Sep-2023 08:25:05 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101524.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 18:43:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | 240-191865-B-3 | Lab Sample ID: | 240-191865-3 | Worklist Smp#: | 22 |
| Client ID: | W-3-N/091123 | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 21 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)






02/07/2024

Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101524.D
Lims ID: 240-191865-B-3
Client ID: W-3-N/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 18:43:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-022
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

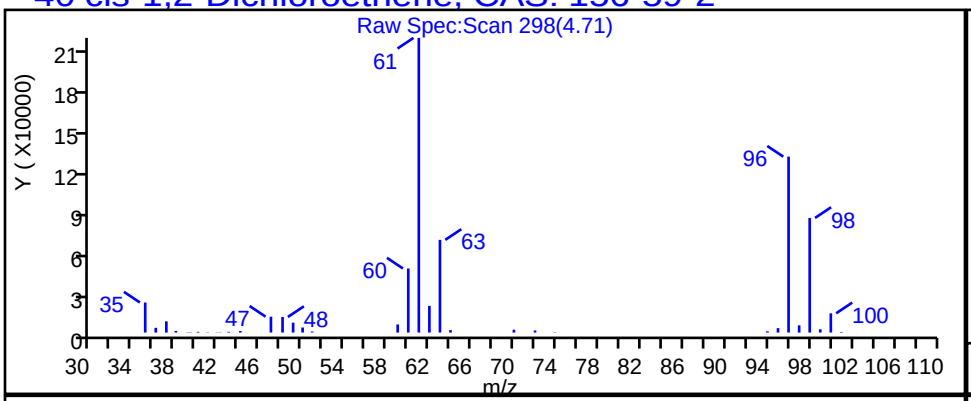
First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:30

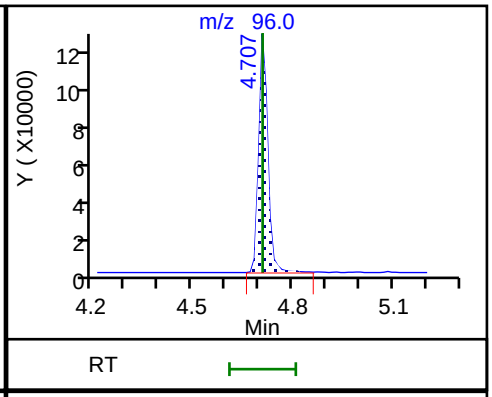
| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 9.25 | 99.01 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.72 | 93.35 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.80 | 94.23 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.56 | 91.66 |

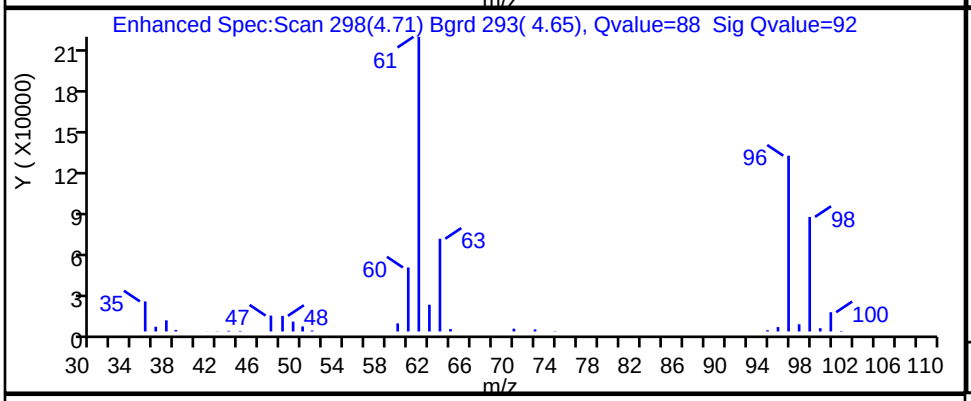
Eurofins Cleveland

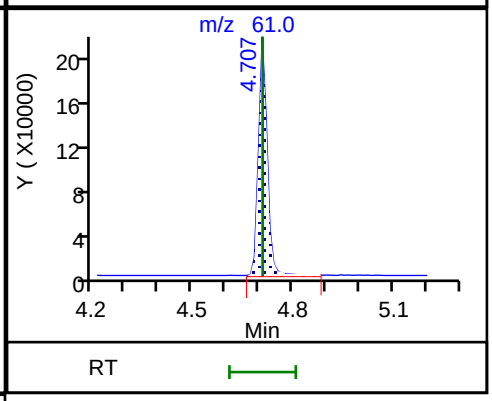
Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101524.D
Injection Date: 19-Sep-2023 18:43:30 Instrument ID: A3UX10
Lims ID: 240-191865-B-3 Lab Sample ID: 240-191865-3
Client ID: W-3-N/091123
Operator ID: 434006 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

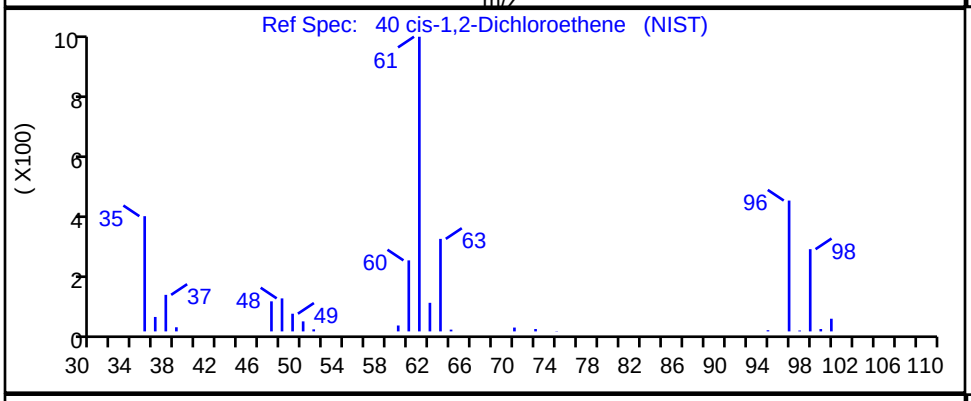
## 40 cis-1,2-Dichloroethene, CAS: 156-59-2

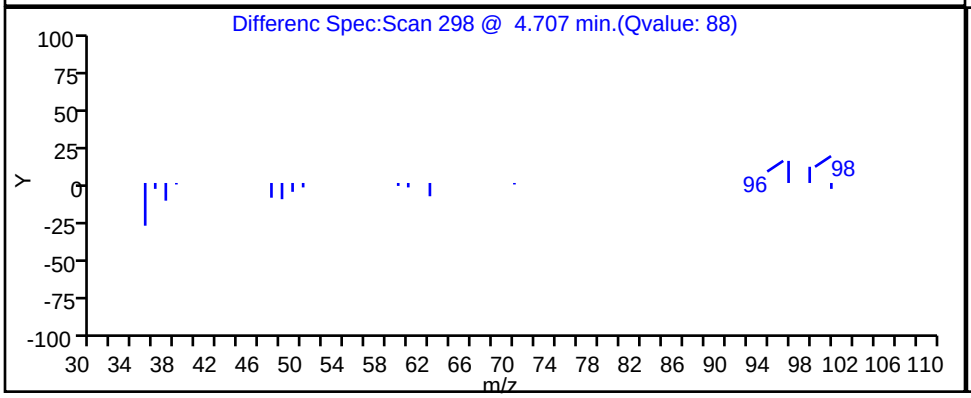


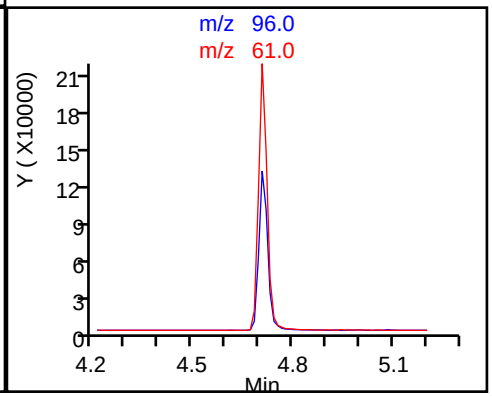



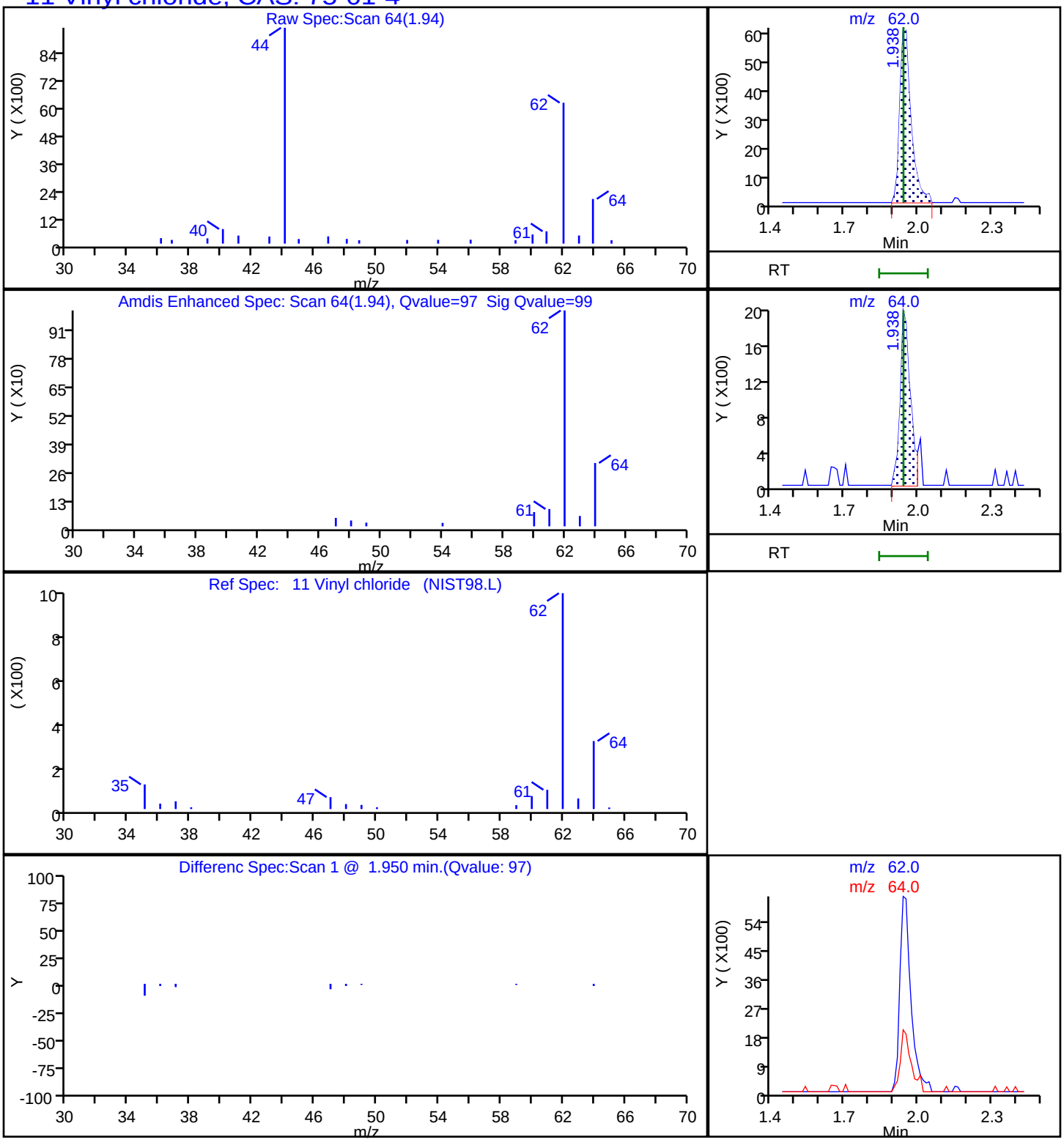



Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101524.D
Injection Date: 19-Sep-2023 18:43:30 Instrument ID: A3UX10
Lims ID: 240-191865-B-3 Lab Sample ID: 240-191865-3
Client ID: W-3-N/091123
Operator ID: 434006 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 11 Vinyl chloride, CAS: 75-01-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: W-4-N/091123/ | Lab Sample ID: 240-191865-4

Matrix: Water | Lab File ID: 101525.D

Analysis Method: 8260D | Date Collected: 09/11/2023 14:35

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 19:07

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 7.5 | | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 6.9 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 0.55 | J | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.1 | | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 8.7 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 95 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 89 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D
Lims ID: 240-191865-A-4
Client ID: W-4-N/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 19:07:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-023
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:52

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.703 | 5.714 | -0.011 | 98 | 545610 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.437 | 8.436 | 0.001 | 92 | 450746 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.709 | 10.708 | 0.001 | 97 | 234425 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.135 | 5.135 | 0.000 | 92 | 140624 | 9.43 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.431 | 5.430 | 0.001 | 96 | 187669 | 8.85 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.100 | 7.099 | 0.001 | 95 | 523811 | 8.77 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.573 | 9.572 | 0.001 | 90 | 218019 | 8.31 | |
| 11 Vinyl chloride | 62 | | 1.940 | | | | ND | 7 |
| 19 1,1-Dichloroethene | 96 | | 3.099 | | | | ND | |
| 30 trans-1,2-Dichloroethene | 96 | 3.810 | 3.809 | 0.001 | 92 | 17689 | 1.05 | |
| 34 1,1-Dichloroethane | 63 | 4.212 | 4.212 | 0.000 | 97 | 268616 | 7.54 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.709 | 4.709 | 0.000 | 87 | 123095 | 6.90 | |
| 48 1,1,1-Trichloroethane | 97 | | 5.146 | | | | ND | 7 |
| 53 Benzene | 78 | | 5.454 | | | | ND | |
| 58 Trichloroethene | 130 | 6.023 | 6.022 | 0.001 | 96 | 146012 | 8.72 | |
| 70 Toluene | 91 | | 7.158 | | | | ND | 7 |
| 74 Tetrachloroethene | 164 | 7.632 | 7.631 | 0.001 | 95 | 7685 | 0.5547 | |
| 84 Ethylbenzene | 106 | | 8.554 | | | | ND | |
| 85 m-Xylene & p-Xylene | 106 | | 8.673 | | | | ND | |
| 86 o-Xylene | 106 | | 9.051 | | | | ND | |
| S 130 Xylenes, Total | 106 | | 16.705 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

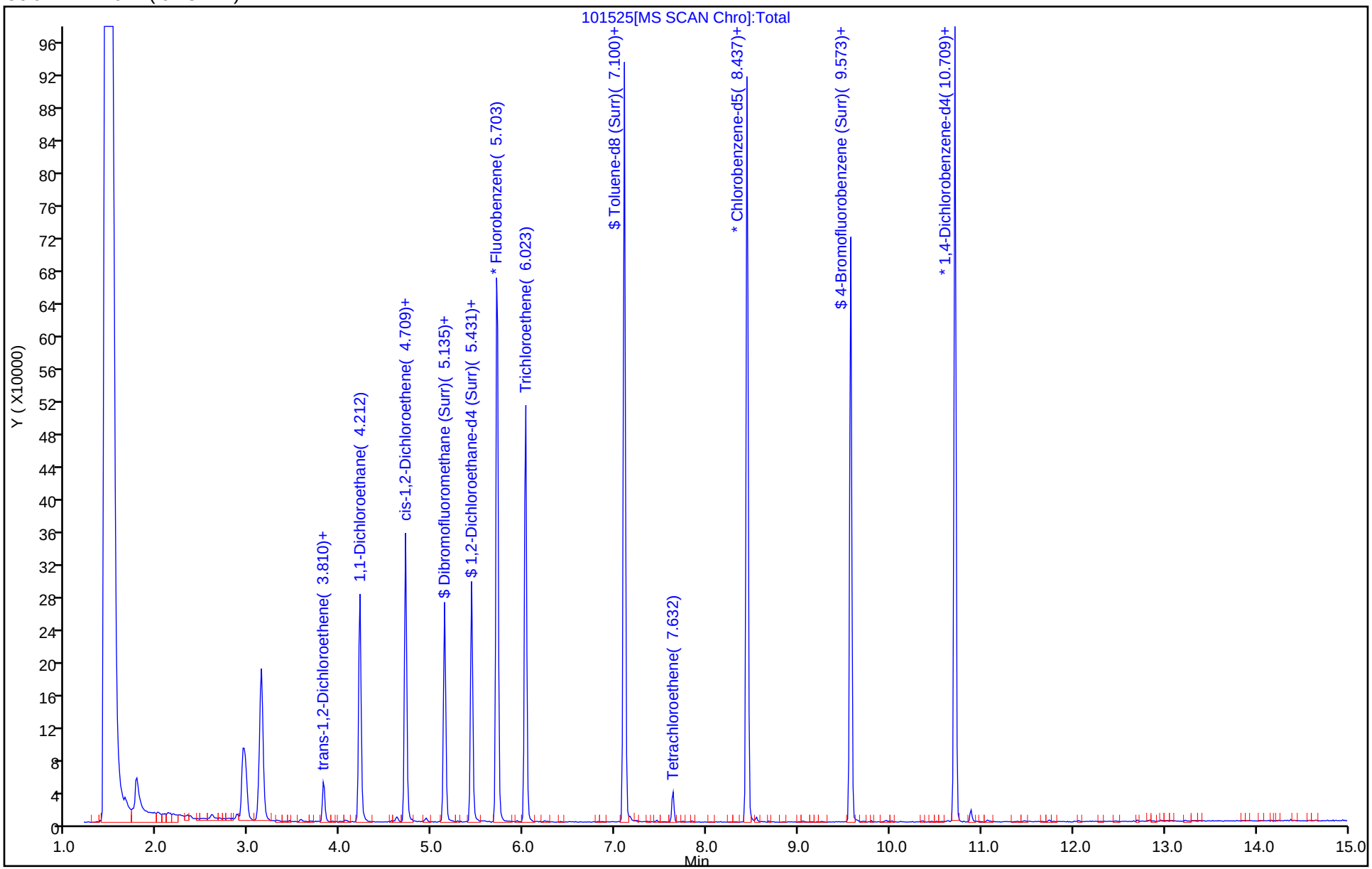
Report Date: 20-Sep-2023 08:25:06 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 19:07:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | 240-191865-A-4 | Lab Sample ID: | 240-191865-4 | Worklist Smp#: | 23 |
| Client ID: | W-4-N/091123 | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 22 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D
Lims ID: 240-191865-A-4
Client ID: W-4-N/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 19:07:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-023
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

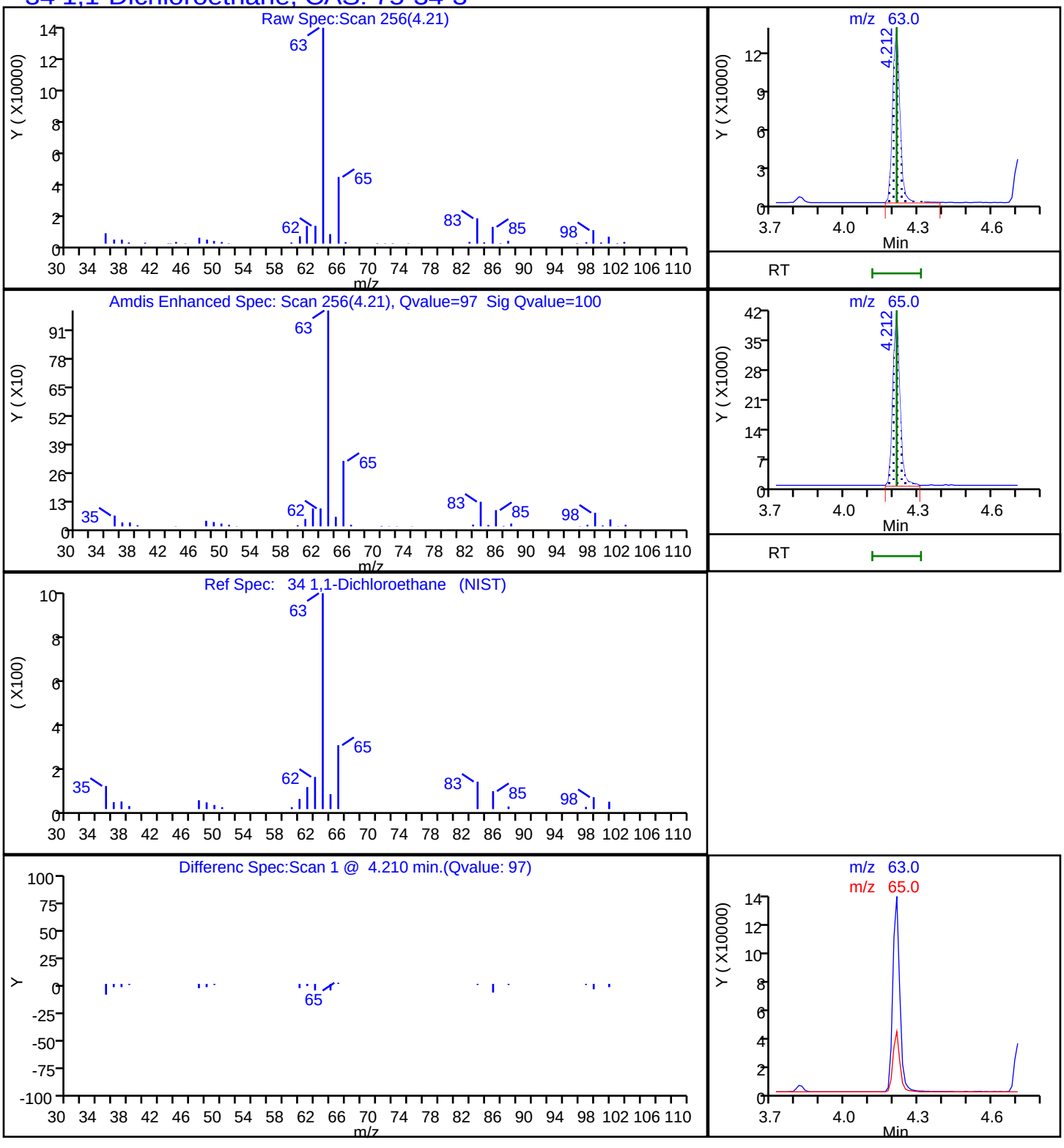
First Level Reviewer: HE9L Date: 20-Sep-2023 08:22:52

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 9.43 | 100.93 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.85 | 94.73 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.77 | 93.91 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.31 | 89.02 |

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D
Injection Date: 19-Sep-2023 19:07:30 Instrument ID: A3UX10
Lims ID: 240-191865-A-4 Lab Sample ID: 240-191865-4
Client ID: W-4-N/091123
Operator ID: 434006 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 34 1,1-Dichloroethane, CAS: 75-34-3



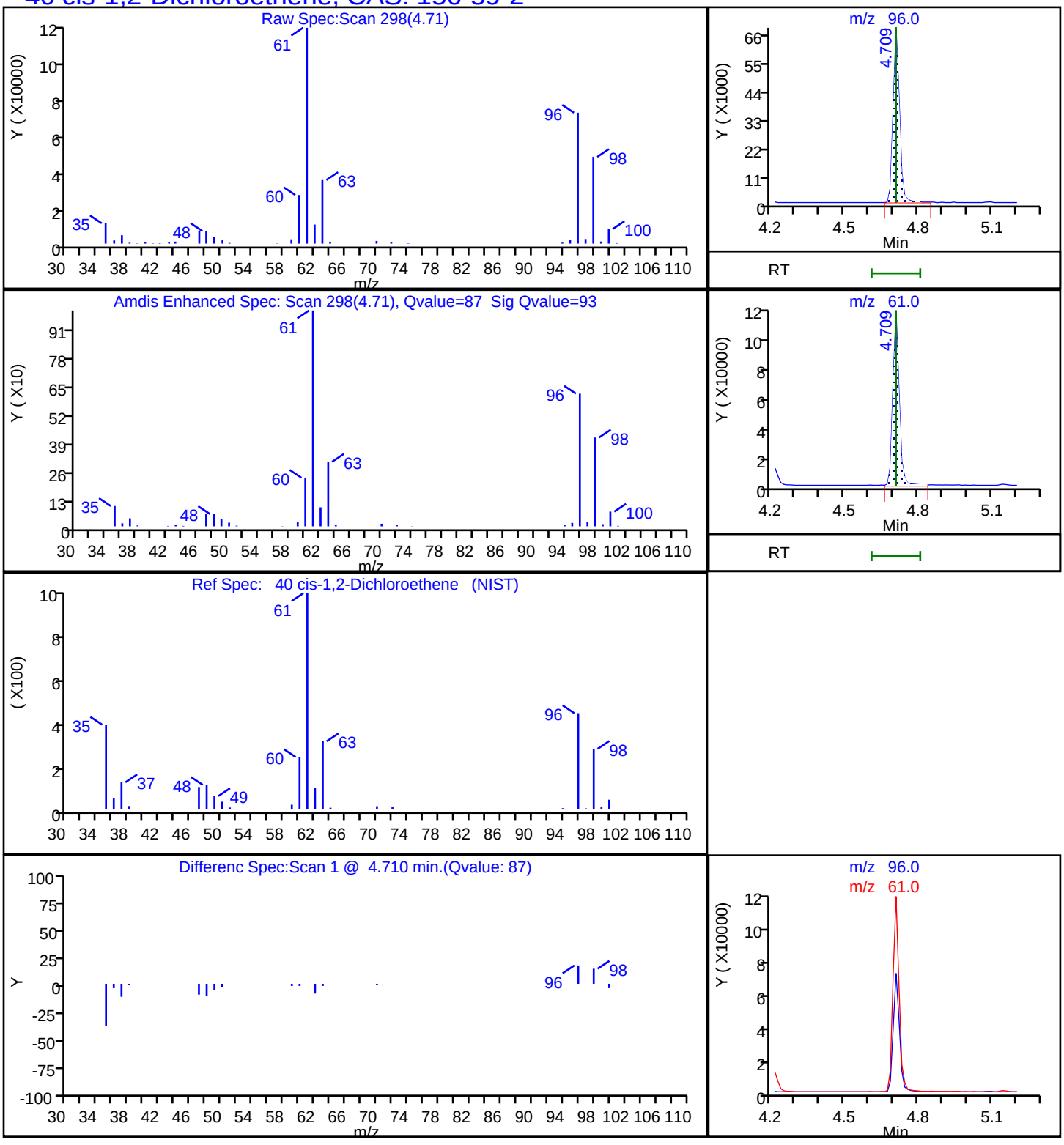
Report Date: 20-Sep-2023 08:25:06 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 19:07:30 | Instrument ID: | A3UX10 | | |
| Lims ID: | 240-191865-A-4 | Lab Sample ID: | 240-191865-4 | | |
| Client ID: | W-4-N/091123 | | | | |
| Operator ID: | 434006 | ALS Bottle#: | 22 | Worklist Smp#: | 23 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

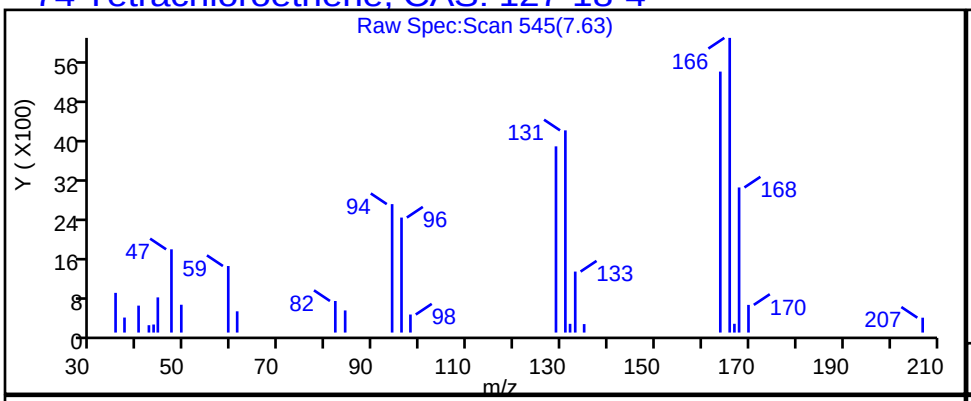
## 40 cis-1,2-Dichloroethene, CAS: 156-59-2

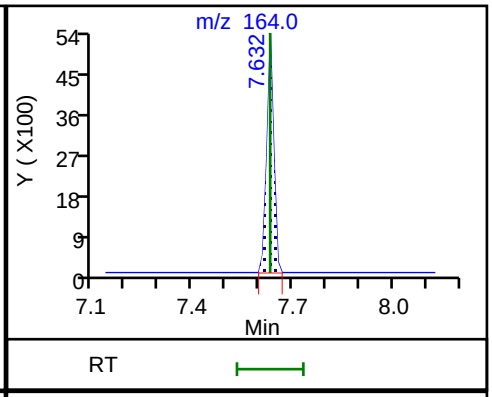


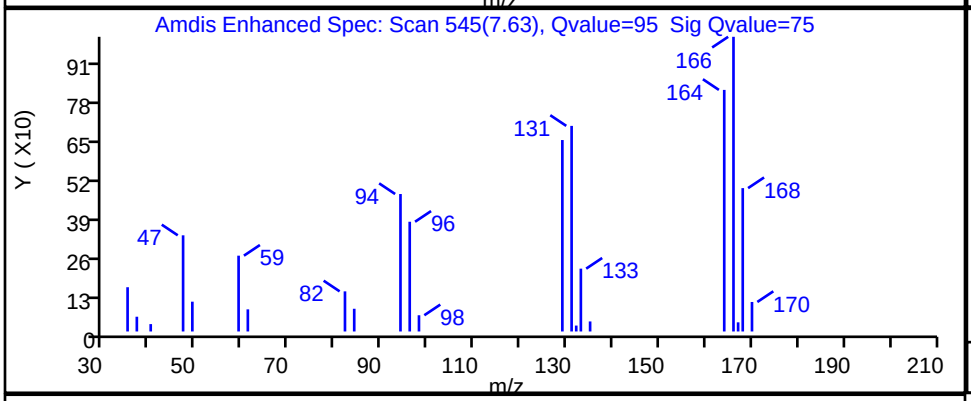
Eurofins Cleveland

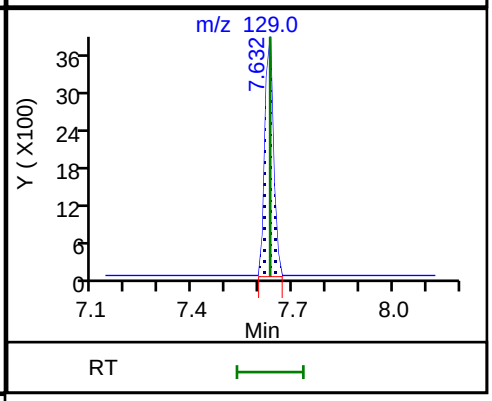
Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D
Injection Date: 19-Sep-2023 19:07:30 Instrument ID: A3UX10
Lims ID: 240-191865-A-4 Lab Sample ID: 240-191865-4
Client ID: W-4-N/091123
Operator ID: 434006 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

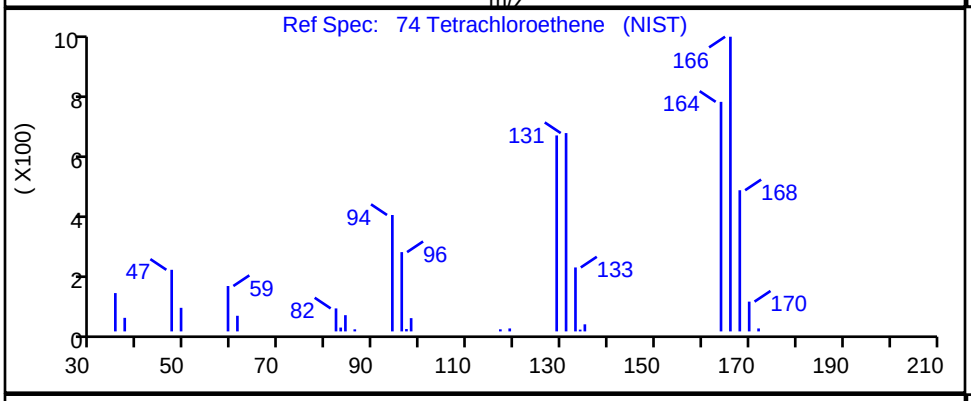
## 74 Tetrachloroethene, CAS: 127-18-4

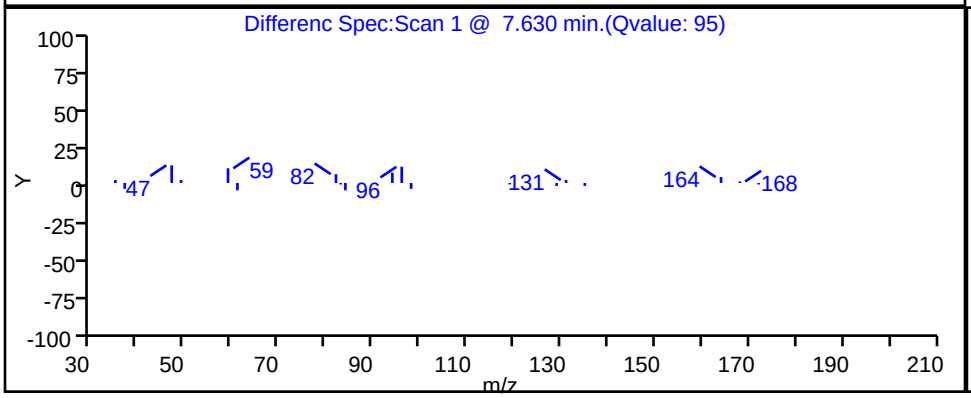


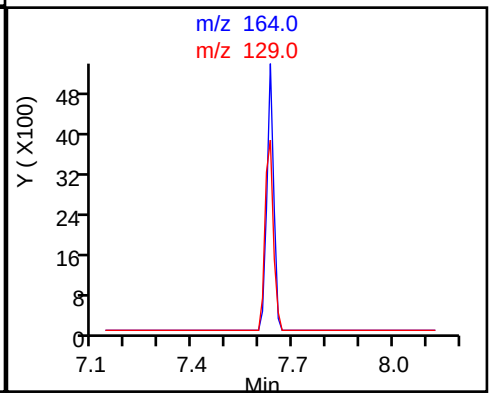



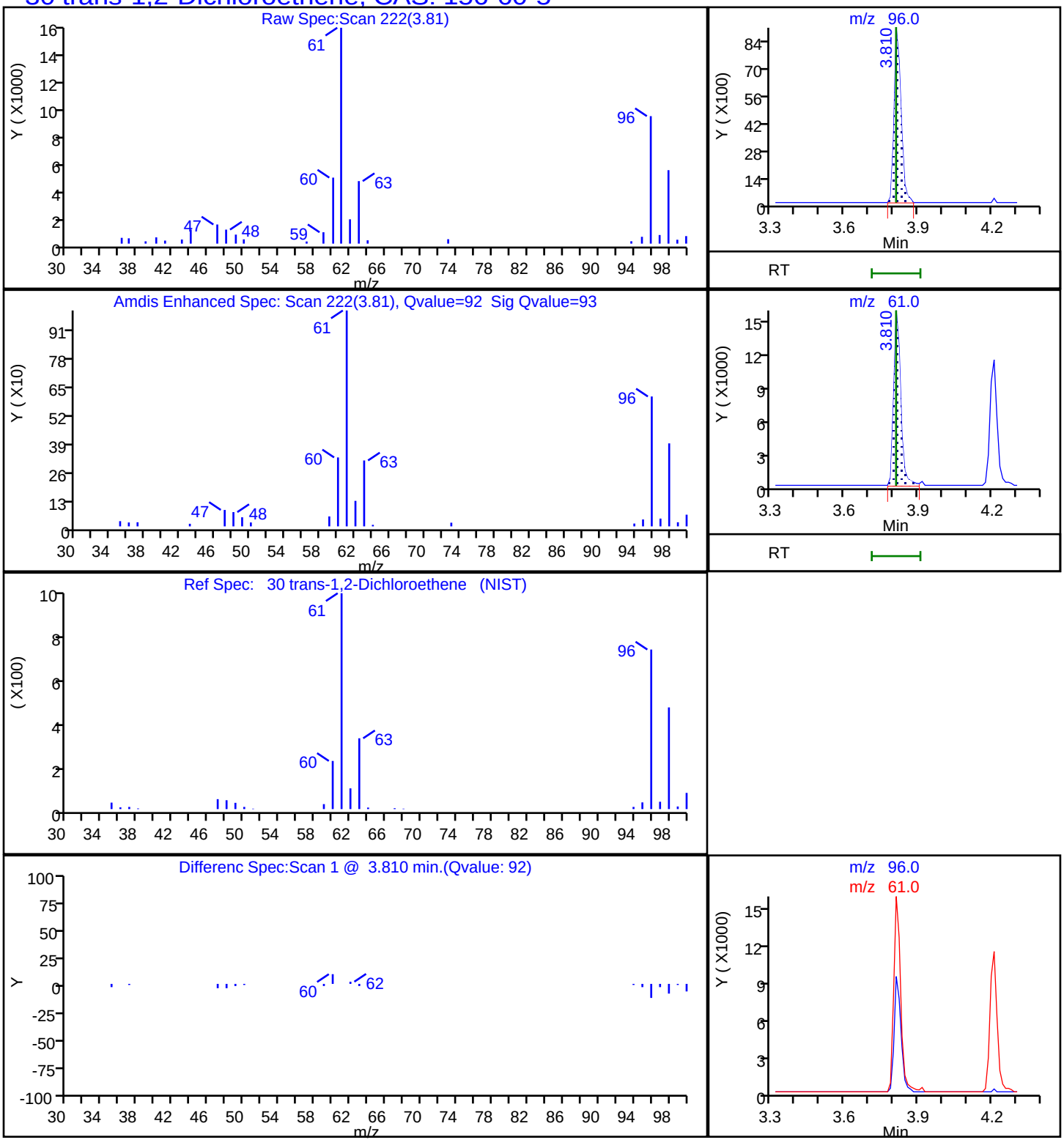



Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D
Injection Date: 19-Sep-2023 19:07:30 Instrument ID: A3UX10
Lims ID: 240-191865-A-4 Lab Sample ID: 240-191865-4
Client ID: W-4-N/091123
Operator ID: 434006 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

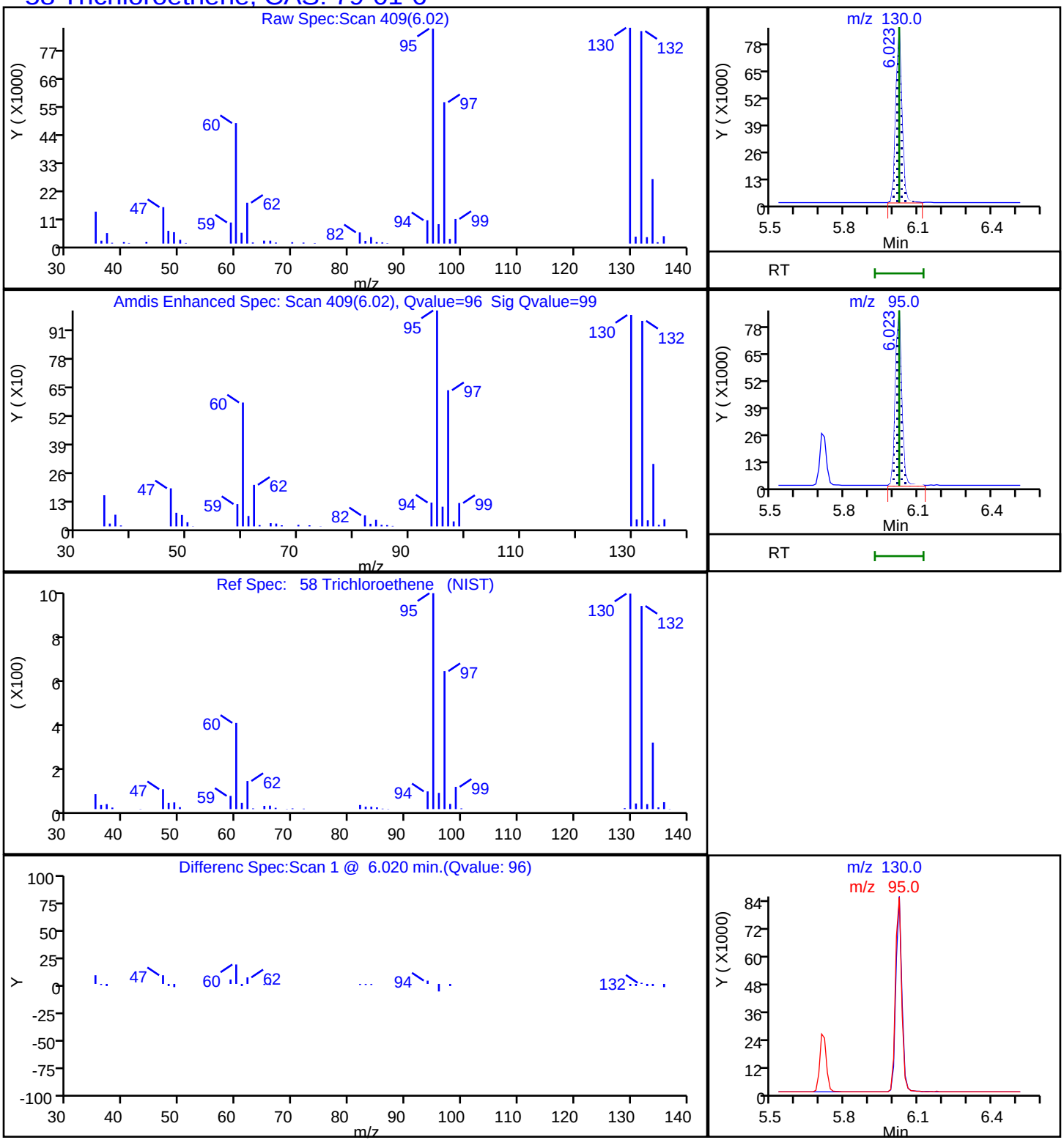
## 30 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101525.D
Injection Date: 19-Sep-2023 19:07:30 Instrument ID: A3UX10
Lims ID: 240-191865-A-4 Lab Sample ID: 240-191865-4
Client ID: W-4-N/091123
Operator ID: 434006 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 58 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: EB-01/091123/ | Lab Sample ID: 240-191865-5

Matrix: Water | Lab File ID: 101526.D

Analysis Method: 8260D | Date Collected: 09/11/2023 17:30

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 19:32

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 94 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 91 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 96 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101526.D
Lims ID: 240-191865-C-5
Client ID: EB-01/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 19:32:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-024
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * | 1 Fluorobenzene | 96 | 5.704 | 5.714 | -0.010 | 98 | 549777 | 10.0 | |
| * | 2 Chlorobenzene-d5 | 117 | 8.438 | 8.436 | 0.002 | 91 | 448346 | 10.0 | |
| * | 3 1,4-Dichlorobenzene-d4 | 152 | 10.709 | 10.708 | 0.001 | 97 | 234965 | 10.0 | |
| $ | 4 Dibromofluoromethane (Surr) | 113 | 5.136 | 5.135 | 0.001 | 93 | 139762 | 9.30 | |
| $ | 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.432 | 5.430 | 0.002 | 96 | 187527 | 8.77 | |
| $ | 6 Toluene-d8 (Surr) | 98 | 7.100 | 7.099 | 0.001 | 95 | 530305 | 8.93 | |
| $ | 7 4-Bromofluorobenzene (Surr) | 95 | 9.574 | 9.572 | 0.002 | 90 | 221681 | 8.50 | |
| | 11 Vinyl chloride | 62 | | 1.940 | | | | ND | |
| | 19 1,1-Dichloroethene | 96 | | 3.099 | | | | ND | |
| | 30 trans-1,2-Dichloroethene | 96 | | 3.809 | | | | ND | 7 |
| | 34 1,1-Dichloroethane | 63 | | 4.212 | | | | ND | |
| | 40 cis-1,2-Dichloroethene | 96 | | 4.709 | | | | ND | 7 |
| | 48 1,1,1-Trichloroethane | 97 | | 5.146 | | | | ND | |
| | 53 Benzene | 78 | | 5.454 | | | | ND | |
| | 58 Trichloroethene | 130 | | 6.022 | | | | ND | 7 |
| | 70 Toluene | 91 | | 7.158 | | | | ND | 7 |
| | 74 Tetrachloroethene | 164 | | 7.631 | | | | ND | |
| | 84 Ethylbenzene | 106 | | 8.554 | | | | ND | |
| | 85 m-Xylene & p-Xylene | 106 | | 8.673 | | | | ND | |
| | 86 o-Xylene | 106 | | 9.051 | | | | ND | |
| S | 130 Xylenes, Total | 106 | | 16.705 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

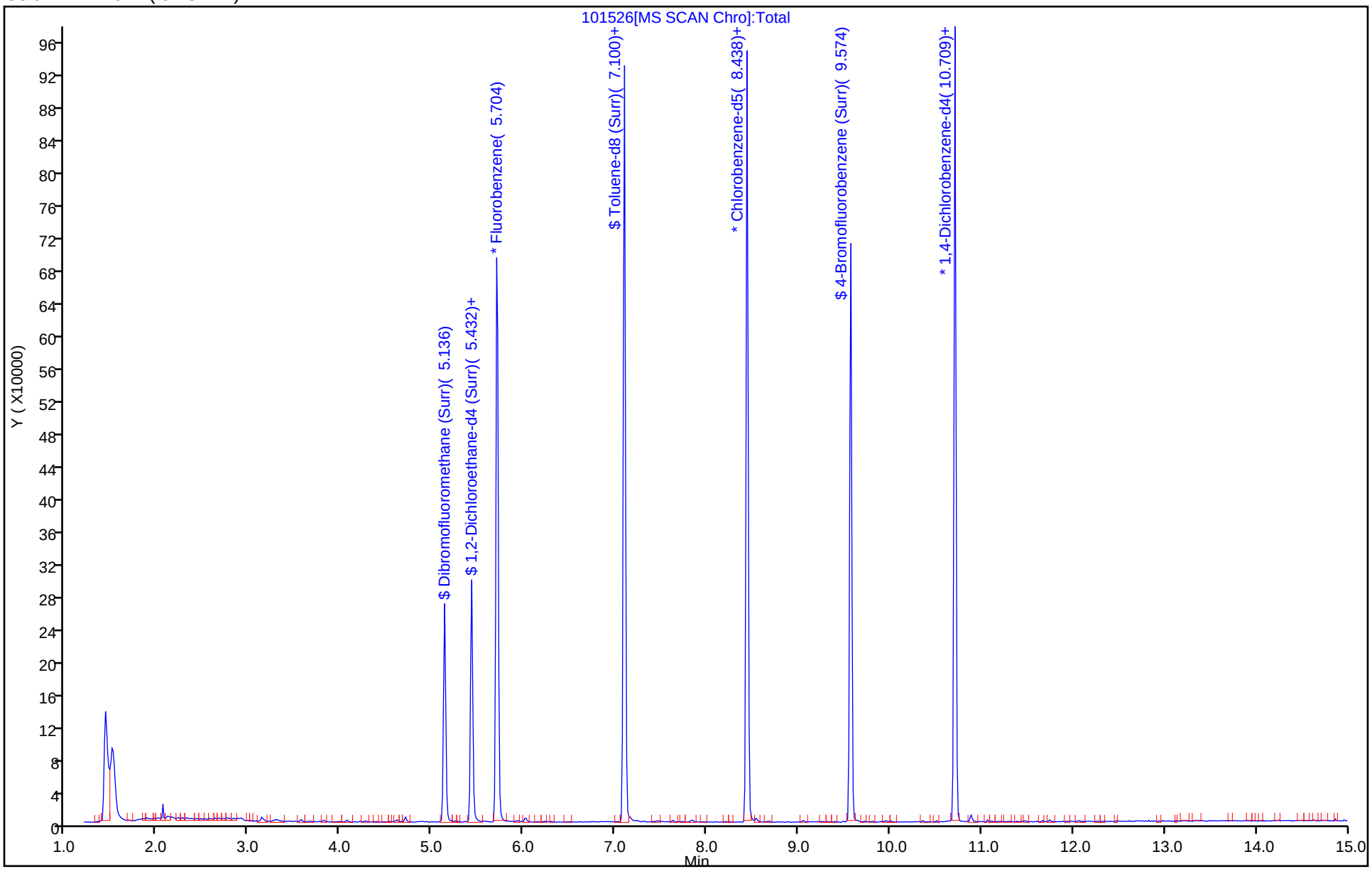
Report Date: 20-Sep-2023 08:25:07 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101526.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 19:32:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | 240-191865-C-5 | Lab Sample ID: | 240-191865-5 | Worklist Smp#: | 24 |
| Client ID: | EB-01/091123 | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 23 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101526.D
Lims ID: 240-191865-C-5
Client ID: EB-01/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 19:32:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-024
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 9.30 | 99.55 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.77 | 93.94 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.93 | 95.59 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.50 | 91.00 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: TB-01/091123/ | Lab Sample ID: 240-191865-6

Matrix: Water | Lab File ID: 101527.D

Analysis Method: 8260D | Date Collected: 09/11/2023 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 19:56

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 93 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 90 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 92 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 97 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101527.D
Lims ID: 240-191865-B-6
Client ID: TB-01/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 19:56:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-025
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * | 1 Fluorobenzene | 96 | 5.714 | 5.714 | 0.000 | 98 | 547488 | 10.0 | |
| * | 2 Chlorobenzene-d5 | 117 | 8.436 | 8.436 | 0.000 | 92 | 455765 | 10.0 | |
| * | 3 1,4-Dichlorobenzene-d4 | 152 | 10.708 | 10.708 | 0.000 | 97 | 233335 | 10.0 | |
| $ | 4 Dibromofluoromethane (Surr) | 113 | 5.135 | 5.135 | 0.000 | 92 | 134935 | 9.01 | |
| $ | 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.430 | 0.000 | 95 | 185235 | 8.70 | |
| $ | 6 Toluene-d8 (Surr) | 98 | 7.099 | 7.099 | 0.000 | 95 | 519795 | 8.61 | |
| $ | 7 4-Bromofluorobenzene (Surr) | 95 | 9.572 | 9.572 | 0.000 | 88 | 223153 | 8.42 | |
| | 11 Vinyl chloride | 62 | | 1.940 | | | | ND | |
| | 19 1,1-Dichloroethene | 96 | | 3.099 | | | | ND | |
| | 30 trans-1,2-Dichloroethene | 96 | | 3.809 | | | | ND | |
| | 34 1,1-Dichloroethane | 63 | | 4.212 | | | | ND | |
| | 40 cis-1,2-Dichloroethene | 96 | | 4.709 | | | | ND | 7 |
| | 48 1,1,1-Trichloroethane | 97 | | 5.146 | | | | ND | |
| | 53 Benzene | 78 | | 5.454 | | | | ND | |
| | 58 Trichloroethene | 130 | | 6.022 | | | | ND | 7 |
| | 70 Toluene | 91 | | 7.158 | | | | ND | |
| | 74 Tetrachloroethene | 164 | | 7.631 | | | | ND | |
| | 84 Ethylbenzene | 106 | | 8.554 | | | | ND | |
| | 85 m-Xylene & p-Xylene | 106 | | 8.673 | | | | ND | |
| | 86 o-Xylene | 106 | | 9.051 | | | | ND | |
| S | 130 Xylenes, Total | 106 | | 16.705 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

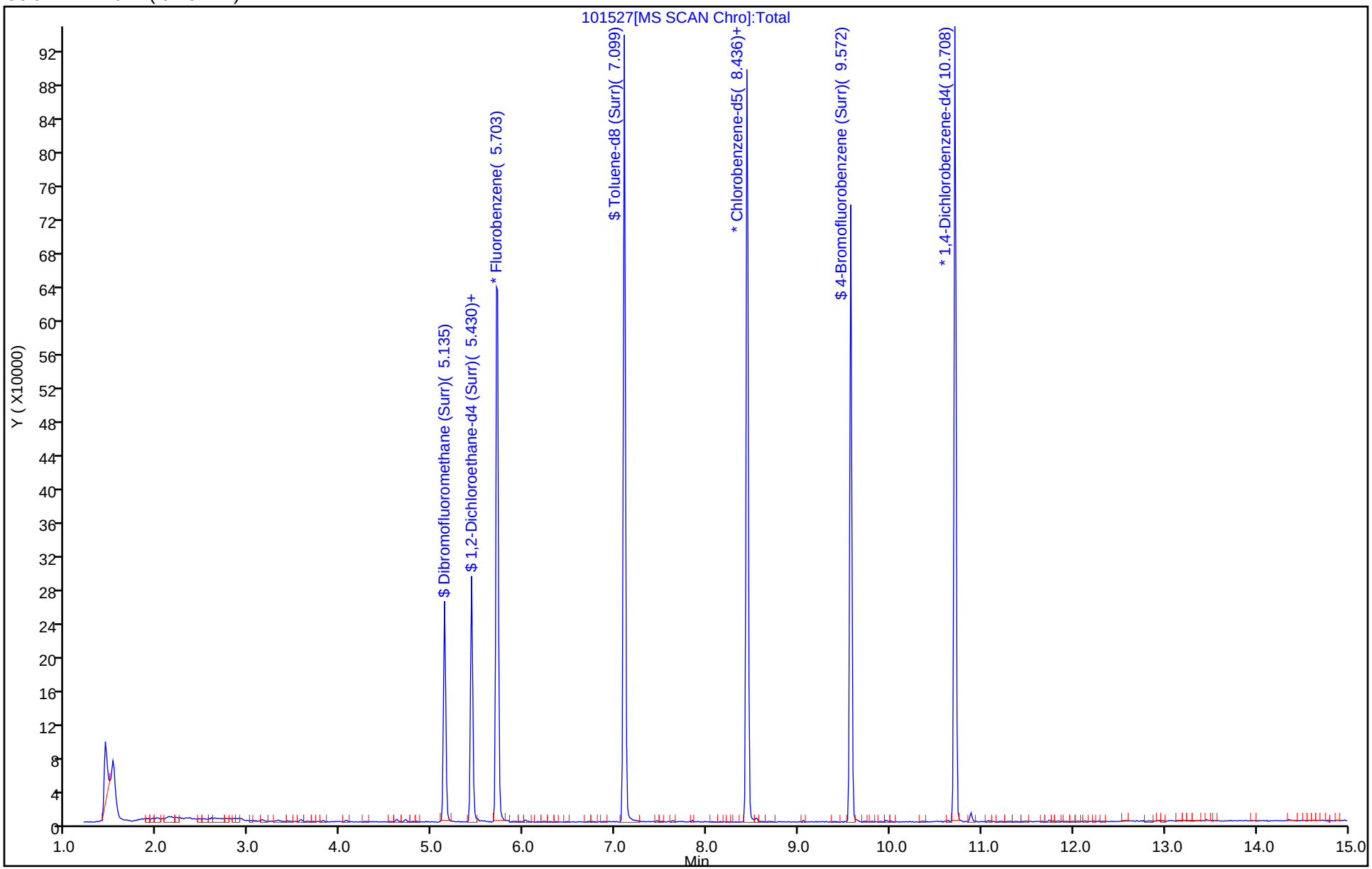
Report Date: 20-Sep-2023 08:25:08 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101527.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 19:56:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | 240-191865-B-6 | Lab Sample ID: | 240-191865-6 | Worklist Smp#: | 25 |
| Client ID: | TB-01/091123 | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101527.D
Lims ID: 240-191865-B-6
Client ID: TB-01/091123
Sample Type: Client
Inject. Date: 19-Sep-2023 19:56:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-025
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 20-Sep-2023 06:01:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1618

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 9.01 | 96.52 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.70 | 93.18 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.61 | 92.17 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.42 | 90.11 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 240-583544/3 | 10-0600.D |
| Level 2 | IC 240-583544/4 | 10-0601.D |
| Level 3 | IC 240-583544/5 | 10-0602.D |
| Level 4 | IC 240-583544/6 | 10-0603.D |
| Level 5 | IC 240-583544/7 | 10-0604.D |
| Level 6 | ICIS 240-583544/8 | 10-0605.D |
| Level 7 | IC 240-583544/9 | 10-0606.D |
| Level 8 | IC 240-583544/10 | 10-0607.D |
| Level 9 | IC 240-583544/11 | 10-0608.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | 0.4400 0.4510 | 0.4960 0.4122 | 0.4405 0.4130 | 0.4011 0.4022 | 0.4034 | Ave | | 0.4288 | | | 0.1000 | 7.3 | | 20.0 | | | |
| Chloromethane | +++++ 0.5594 | 0.6392 0.5828 | 0.6071 0.5763 | 0.5991 0.5888 | 0.5926 | Ave | | 0.5932 | | | 0.1000 | 4.0 | | 20.0 | | | |
| Vinyl chloride | 0.7077 0.4755 | 0.5564 0.4827 | 0.4969 0.4805 | 0.4827 0.4847 | 0.4802 | Ave | | 0.5164 | | | 0.1000 | 14.7 | | 20.0 | | | |
| Butadiene | 0.7481 0.5815 | 0.6420 0.5636 | 0.5674 0.5467 | 0.5544 0.5455 | 0.5585 | Ave | | 0.5897 | | | | 11.2 | | 20.0 | | | |
| Bromomethane | 0.2597 0.2262 | 0.2607 0.2402 | 0.2610 0.2365 | 0.2499 0.2347 | 0.2482 | Ave | | 0.2463 | | | 0.0500 | 5.2 | | 20.0 | | | |
| Chloroethane | 0.4068 0.2635 | 0.3127 0.2797 | 0.2932 0.2738 | 0.2801 0.2855 | 0.2762 | Ave | | 0.2968 | | | 0.0500 | 14.7 | | 20.0 | | | |
| Trichlorofluoromethane | 0.5411 0.4955 | 0.5363 0.4757 | 0.4819 0.4667 | 0.4893 0.4584 | 0.4696 | Ave | | 0.4905 | | | 0.1000 | 6.0 | | 20.0 | | | |
| Dichlorofluoromethane | 0.7949 0.5365 | 0.6501 0.5665 | 0.5891 0.5558 | 0.5791 0.5627 | 0.5686 | Ave | | 0.6004 | | | | 13.2 | | 20.0 | | | |
| Ethyl ether | 0.3602 0.2663 | 0.2800 0.2791 | 0.2979 0.2750 | 0.2775 0.2799 | 0.2764 | Ave | | 0.2880 | | | | 9.8 | | 20.0 | | | |
| Acrolein | +++++ 0.0141 | 0.0146 0.0142 | 0.0168 0.0144 | 0.0148 0.0146 | 0.0144 | Ave | | 0.0147 | | | | 5.9 | | 20.0 | | | |
| 1,1-Dichloroethene | 0.3339 0.2396 | 0.2591 0.2365 | 0.2370 0.2361 | 0.2374 0.2388 | 0.2315 | Ave | | 0.2500 | | | 0.1000 | 13.0 | | 20.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2730 0.2202 | 0.2174 0.2019 | 0.1799 0.1965 | 0.1954 0.2005 | 0.1924 | Ave | | 0.2086 | | | 0.0500 | 13.0 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Acetone | 0.3323 0.0961 | 0.1962 0.0944 | 0.1322 0.0948 | 0.1081 0.0938 | 0.1025 | Lin1 | 0.2260 | 0.0919 | | | 0.0100 | 7.3 | | 30.0 | 1.0000 | | 0.9900 |
| Iodomethane | 0.5944 0.4103 | 0.4407 0.4351 | 0.4376 0.4394 | 0.4390 0.4418 | 0.4342 | Ave | | 0.4525 | | | | 11.9 | | 20.0 | | | |
| Carbon disulfide | +++++ 0.7375 | 0.8407 0.7487 | 0.7383 0.7568 | 0.7533 0.7629 | 0.7480 | Ave | | 0.7608 | | | 0.1000 | 4.4 | | 20.0 | | | |
| Methyl acetate | +++++ 0.2609 | 0.2802 0.2633 | 0.2702 0.2618 | 0.2659 0.2620 | 0.2587 | Ave | | 0.2654 | | | 0.0500 | 2.6 | | 20.0 | | | |
| 3-Chloro-1-propene | +++++ 0.1998 | 0.2113 0.2059 | 0.1878 0.2135 | 0.1840 0.2192 | 0.2010 | Ave | | 0.2028 | | | | 6.0 | | 20.0 | | | |
| Methylene Chloride | 0.7461 0.2842 | 0.4636 0.3025 | 0.3794 0.3025 | 0.3285 0.3050 | 0.3151 | Lin1 | 0.2033 | 0.2962 | | | 0.1000 | 7.7 | | 30.0 | 0.9990 | | 0.9900 |
| 2-Methyl-2-propanol | +++++ 0.0315 | 0.0367 0.0319 | 0.0334 0.0324 | 0.0324 0.0324 | 0.0324 | Ave | | 0.0329 | | | | 5.0 | | 20.0 | | | |
| Acrylonitrile | 0.1740 0.1291 | 0.1411 0.1294 | 0.1311 0.1280 | 0.1314 0.1286 | 0.1289 | Ave | | 0.1357 | | | | 11.0 | | 20.0 | | | |
| Methyl tert-butyl ether | 1.1139 0.8127 | 0.8692 0.8449 | 0.8724 0.8617 | 0.8742 0.8701 | 0.8470 | Ave | | 0.8851 | | | 0.1000 | 9.9 | | 20.0 | | | |
| trans-1,2-Dichloroethene | 0.4462 0.2752 | 0.3200 0.2878 | 0.2910 0.2889 | 0.2919 0.2905 | 0.2869 | Ave | | 0.3087 | | | 0.1000 | 17.1 | | 20.0 | | | |
| Hexane | 0.0867 0.0673 | 0.0744 0.0604 | 0.0583 0.0599 | 0.0576 0.0597 | 0.0581 | Ave | | 0.0647 | | | | 15.3 | | 20.0 | | | |
| Vinyl acetate | 0.6827 0.5110 | 0.5290 0.5536 | 0.5478 0.5224 | 0.5360 0.5177 | 0.5503 | Ave | | 0.5500 | | | | 9.4 | | 20.0 | | | |
| 1,1-Dichloroethane | 0.8395 0.6039 | 0.6343 0.6295 | 0.6336 0.6269 | 0.6445 0.6378 | 0.6292 | Ave | | 0.6532 | | | 0.2000 | 10.8 | | 20.0 | | | |
| 2-Butanone (MEK) | 0.2081 0.1413 | 0.1597 0.1403 | 0.1509 0.1398 | 0.1473 0.1410 | 0.1415 | Ave | | 0.1522 | | | 0.0100 | 14.4 | | 20.0 | | | |
| cis-1,2-Dichloroethene | +++++ 0.3043 | 0.3285 0.3230 | 0.3498 0.3249 | 0.3327 0.3236 | 0.3281 | Ave | | 0.3269 | | | 0.1000 | 3.8 | | 20.0 | | | |
| 2,2-Dichloropropane | +++++ 0.0735 | 0.0960 0.0757 | 0.0841 0.0749 | 0.0828 0.0720 | 0.0801 | Ave | | 0.0799 | | | | 9.8 | | 20.0 | | | |
| Chlorobromomethane | 0.2216 0.1384 | 0.1619 0.1480 | 0.1458 0.1450 | 0.1484 0.1469 | 0.1474 | Ave | | 0.1559 | | | | 16.3 | | 20.0 | | | |
| Tetrahydrofuran | +++++ 0.0909 | 0.1100 0.0915 | 0.0965 0.0904 | 0.0943 0.0934 | 0.0930 | Ave | | 0.0950 | | | | 6.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Chloroform | 0.7457 0.5207 | 0.5920 0.5516 | 0.5811 0.5431 | 0.5711 0.5507 | 0.5563 | Ave | | 0.5792 | | | 0.2000 | 11.4 | | 20.0 | | | |
| 1,1,1-Trichloroethane | 0.6328 0.4694 | 0.5277 0.4806 | 0.4744 0.4770 | 0.4889 0.4794 | 0.4734 | Ave | | 0.5004 | | | 0.1000 | 10.5 | | 20.0 | | | |
| Cyclohexane | 0.7759 0.6719 | 0.6921 0.6202 | 0.5472 0.6019 | 0.6167 0.6102 | 0.6038 | Ave | | 0.6378 | | | 0.1000 | 10.4 | | 20.0 | | | |
| Carbon tetrachloride | 0.5446 0.4252 | 0.4243 0.4104 | 0.3806 0.4162 | 0.4164 0.4197 | 0.4116 | Ave | | 0.4277 | | | 0.1000 | 10.7 | | 20.0 | | | |
| 1,1-Dichloropropene | 0.5859 0.4147 | 0.4225 0.4110 | 0.4057 0.4079 | 0.4144 0.4180 | 0.4131 | Ave | | 0.4326 | | | | 13.3 | | 20.0 | | | |
| Isobutyl alcohol | 0.0200 0.0131 | 0.0143 0.0133 | 0.0130 0.0132 | 0.0137 0.0132 | 0.0132 | Ave | | 0.0141 | | | | 15.9 | | 20.0 | | | |
| Benzene | 1.5227 1.1069 | 1.1990 1.1478 | 1.1746 1.1422 | 1.1863 1.1557 | 1.1576 | Ave | | 1.1992 | | | 0.5000 | 10.4 | | 20.0 | | | |
| 1,2-Dichloroethane | 0.8000 0.4926 | 0.5508 0.5122 | 0.5325 0.5076 | 0.5313 0.5166 | 0.5186 | Ave | | 0.5514 | | | 0.1000 | 17.2 | | 20.0 | | | |
| n-Heptane | 0.0736 0.0681 | 0.0769 0.0606 | 0.0462 0.0576 | 0.0557 0.0584 | 0.0574 | Ave | | 0.0616 | | | | 15.6 | | 20.0 | | | |
| Trichloroethene | 0.4431 0.2811 | 0.2947 0.2872 | 0.2867 0.2864 | 0.2945 0.2964 | 0.2928 | Ave | | 0.3070 | | | 0.1500 | 16.7 | | 20.0 | | | |
| Methylcyclohexane | 0.5709 0.4816 | 0.5000 0.4350 | 0.3899 0.4221 | 0.4354 0.4280 | 0.4192 | Ave | | 0.4535 | | | 0.1000 | 12.1 | | 20.0 | | | |
| 1,2-Dichloropropane | 0.4585 0.3300 | 0.3553 0.3447 | 0.3570 0.3462 | 0.3659 0.3523 | 0.3491 | Ave | | 0.3621 | | | 0.1000 | 10.3 | | 20.0 | | | |
| 1,4-Dioxane | 0.0040 0.0024 | 0.0028 0.0026 | 0.0023 0.0027 | 0.0025 0.0026 | 0.0025 | Ave | | 0.0027 | | | | 18.5 | | 20.0 | | | |
| Dibromomethane | 0.2756 0.1728 | 0.1976 0.1839 | 0.1880 0.1817 | 0.1887 0.1848 | 0.1875 | Ave | | 0.1956 | | | | 15.7 | | 20.0 | | | |
| Dichlorobromomethane | 0.6639 0.4101 | 0.4573 0.4291 | 0.4436 0.4280 | 0.4481 0.4314 | 0.4345 | Ave | | 0.4607 | | | 0.1500 | 16.8 | | 20.0 | | | |
| 2-Chloroethyl vinyl ether | 0.2766 0.2073 | 0.2189 0.2158 | 0.2125 0.2170 | 0.2110 0.2168 | 0.2162 | Ave | | 0.2213 | | | | 9.5 | | 20.0 | | | |
| cis-1,3-Dichloropropene | 0.7157 0.4892 | 0.5086 0.5152 | 0.5213 0.5137 | 0.5163 0.5181 | 0.5206 | Ave | | 0.5354 | | | 0.1500 | 12.8 | | 20.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | 0.4202 0.3211 | 0.3529 0.3230 | 0.3259 0.3223 | 0.3307 0.3220 | 0.3300 | Ave | | 0.3387 | | | 0.0500 | 9.5 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Toluene | 2.1446<br>1.4973 | 1.6933<br>1.5879 | 1.5537<br>1.5309 | 1.6264<br>1.5501 | 1.5705 | Ave | | 1.6394 | | | 0.4000 | 12.1 | | 20.0 | | | |
| trans-1,3-Dichloropropene | 0.8584<br>0.5734 | 0.6315<br>0.6158 | 0.5893<br>0.5943 | 0.6111<br>0.6057 | 0.6067 | Ave | | 0.6318 | | | 0.1000 | 13.7 | | 20.0 | | | |
| Ethyl methacrylate | 0.6624<br>0.4604 | 0.5168<br>0.4808 | 0.4611<br>0.4697 | 0.4778<br>0.4684 | 0.4715 | Ave | | 0.4966 | | | | 13.0 | | 20.0 | | | |
| 1,1,2-Trichloroethane | 0.3990<br>0.2939 | 0.3267<br>0.3176 | 0.3115<br>0.3064 | 0.3175<br>0.3072 | 0.3115 | Ave | | 0.3213 | | | 0.1000 | 9.5 | | 20.0 | | | |
| Tetrachloroethene | 0.4004<br>0.2889 | 0.3231<br>0.2995 | 0.2810<br>0.2880 | 0.2953<br>0.2959 | 0.2946 | Ave | | 0.3074 | | | 0.1500 | 12.0 | | 20.0 | | | |
| 1,3-Dichloropropane | 0.7554<br>0.5499 | 0.5944<br>0.5775 | 0.5707<br>0.5680 | 0.5819<br>0.5757 | 0.5711 | Ave | | 0.5938 | | | | 10.4 | | 20.0 | | | |
| 2-Hexanone | 0.3788<br>0.2832 | 0.3080<br>0.2851 | 0.2840<br>0.2836 | 0.3005<br>0.2775 | 0.2892 | Ave | | 0.2989 | | | 0.0500 | 10.5 | | 20.0 | | | |
| Chlorodibromomethane | 0.5200<br>0.3535 | 0.3770<br>0.3807 | 0.3532<br>0.3735 | 0.3717<br>0.3761 | 0.3739 | Ave | | 0.3866 | | | | 13.2 | | 20.0 | | | |
| Ethylene Dibromide | 0.4335<br>0.3087 | 0.3274<br>0.3301 | 0.3269<br>0.3265 | 0.3273<br>0.3258 | 0.3238 | Ave | | 0.3366 | | | | 10.9 | | 20.0 | | | |
| Chlorobenzene | +++++<br>0.9745 | 1.1043<br>1.0427 | 1.0677<br>1.0237 | 1.0800<br>1.0315 | 1.0370 | Ave | | 1.0452 | | | 0.3000 | 3.8 | | 20.0 | | | |
| 1,1,1,2-Tetrachloroethane | 0.4916<br>0.3619 | 0.3667<br>0.3868 | 0.3830<br>0.3794 | 0.3920<br>0.3852 | 0.3822 | Ave | | 0.3921 | | | | 9.8 | | 20.0 | | | |
| Ethylbenzene | 0.7529<br>0.5359 | 0.5841<br>0.5633 | 0.5512<br>0.5553 | 0.5646<br>0.5605 | 0.5658 | Ave | | 0.5815 | | | | 11.3 | | 20.0 | | | |
| m-Xylene & p-Xylene | 0.9802<br>0.6689 | 0.7123<br>0.7006 | 0.6836<br>0.6925 | 0.7168<br>0.7040 | 0.7032 | Ave | | 0.7291 | | | | 13.1 | | 20.0 | | | |
| o-Xylene | 0.9076<br>0.6686 | 0.7336<br>0.7045 | 0.7099<br>0.7003 | 0.7189<br>0.7074 | 0.7109 | Ave | | 0.7291 | | | | 9.5 | | 20.0 | | | |
| Styrene | 1.5439<br>1.1420 | 1.2139<br>1.2115 | 1.1961<br>1.2113 | 1.2046<br>1.2056 | 1.2180 | Ave | | 1.2385 | | | 0.3000 | 9.4 | | 20.0 | | | |
| Bromoform | 0.3388<br>0.2635 | 0.2519<br>0.2761 | 0.2484<br>0.2761 | 0.2641<br>0.2781 | 0.2652 | Ave | | 0.2736 | | | 0.1000 | 9.7 | | 20.0 | | | |
| Isopropylbenzene | 2.3588<br>1.7133 | 1.8052<br>1.7759 | 1.7634<br>1.7116 | 1.8063<br>1.7673 | 1.7780 | Ave | | 1.8311 | | | 0.1000 | 11.0 | | 20.0 | | | |
| 1,1,2,2-Tetrachloroethane | 0.9453<br>0.6755 | 0.7402<br>0.6829 | 0.7217<br>0.6937 | 0.7173<br>0.6694 | 0.7127 | Ave | | 0.7288 | | | 0.3000 | 11.6 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Bromobenzene | 1.0400<br>0.7576 | 0.8282<br>0.7849 | 0.7881<br>0.8187 | 0.7954<br>0.7908 | 0.8035 | Ave | | 0.8230 | | | | 10.2 | | 20.0 | | | |
| trans-1,4-Dichloro-2-butene | 0.3843<br>0.2781 | 0.3004<br>0.2717 | 0.2794<br>0.2936 | 0.2802<br>0.2844 | 0.2721 | Ave | | 0.2938 | | | | 12.0 | | 20.0 | | | |
| 1,2,3-Trichloropropane | 0.2899<br>0.2069 | 0.2169<br>0.2060 | 0.2140<br>0.2151 | 0.2212<br>0.2027 | 0.2146 | Ave | | 0.2208 | | | | 12.0 | | 20.0 | | | |
| N-Propylbenzene | 1.0257<br>0.7800 | 0.8048<br>0.7935 | 0.7971<br>0.8148 | 0.8197<br>0.8082 | 0.8053 | Ave | | 0.8277 | | | | 9.1 | | 20.0 | | | |
| 2-Chlorotoluene | 0.9638<br>0.6824 | 0.7307<br>0.7084 | 0.7247<br>0.7217 | 0.7234<br>0.7134 | 0.7258 | Ave | | 0.7438 | | | | 11.3 | | 20.0 | | | |
| 1,3,5-Trimethylbenzene | 3.3541<br>2.4890 | 2.6826<br>2.5478 | 2.5661<br>2.5907 | 2.6506<br>2.5128 | 2.6097 | Ave | | 2.6670 | | | | 9.9 | | 20.0 | | | |
| 4-Chlorotoluene | 1.1099<br>0.7151 | 0.7251<br>0.7349 | 0.7276<br>0.7531 | 0.7690<br>0.7495 | 0.7629 | Ave | | 0.7830 | | | | 15.8 | | 20.0 | | | |
| tert-Butylbenzene | 2.6549<br>2.0086 | 2.1717<br>2.0266 | 2.0056<br>2.0583 | 2.1502<br>2.0717 | 2.1028 | Ave | | 2.1389 | | | | 9.5 | | 20.0 | | | |
| 1,2,4-Trimethylbenzene | 3.5283<br>2.5990 | 2.7477<br>2.6655 | 2.7240<br>2.6902 | 2.8075<br>2.6275 | 2.7671 | Ave | | 2.7952 | | | | 10.1 | | 20.0 | | | |
| sec-Butylbenzene | 3.9321<br>2.9848 | 3.2087<br>2.9993 | 2.9554<br>2.9983 | 3.1662<br>2.9933 | 3.0762 | Ave | | 3.1460 | | | | 9.8 | | 20.0 | | | |
| 1,3-Dichlorobenzene | 2.0238<br>1.3512 | 1.5138<br>1.4228 | 1.4727<br>1.4387 | 1.4946<br>1.4211 | 1.4608 | Ave | | 1.5110 | | | 0.6000 | 13.1 | | 20.0 | | | |
| 4-Isopropyltoluene | 3.3692<br>2.5410 | 2.6377<br>2.5704 | 2.5489<br>2.5734 | 2.6771<br>2.5475 | 2.6101 | Ave | | 2.6750 | | | | 9.9 | | 20.0 | | | |
| 1,4-Dichlorobenzene | 2.1505<br>1.3978 | 1.4653<br>1.4486 | 1.5189<br>1.4662 | 1.5214<br>1.4461 | 1.4788 | Ave | | 1.5437 | | | 0.5000 | 14.9 | | 20.0 | | | |
| n-Butylbenzene | 3.1571<br>2.3622 | 2.5085<br>2.3968 | 2.3349<br>2.3984 | 2.5077<br>2.4020 | 2.4384 | Ave | | 2.5006 | | | | 10.1 | | 20.0 | | | |
| 1,2-Dichlorobenzene | 1.9006<br>1.3106 | 1.4188<br>1.3518 | 1.3894<br>1.3641 | 1.4494<br>1.3567 | 1.3908 | Ave | | 1.4369 | | | 0.4000 | 12.4 | | 20.0 | | | |
| 1,2-Dibromo-3-Chloropropane | 0.1726<br>0.1502 | 0.1616<br>0.1458 | 0.1367<br>0.1491 | 0.1443<br>0.1505 | 0.1446 | Ave | | 0.1506 | | | 0.0500 | 7.0 | | 20.0 | | | |
| 1,2,4-Trichlorobenzene | 1.4497<br>0.9342 | 0.9870<br>0.9737 | 0.9812<br>0.9869 | 1.0132<br>0.9883 | 0.9873 | Ave | | 1.0335 | | | 0.2000 | 15.2 | | 20.0 | | | |
| Hexachlorobutadiene | 0.5801<br>0.4013 | 0.4367<br>0.4131 | 0.3895<br>0.4049 | 0.4218<br>0.4216 | 0.4115 | Ave | | 0.4312 | | | | 13.3 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Naphthalene | 2.5851 1.8362 | 1.9348 1.8482 | 1.9046 1.8839 | 1.9605 1.8639 | 1.8840 | Ave | | 1.9668 | | | | 12.0 | | 20.0 | | | |
| 1,2,3-Trichlorobenzene | 1.1329 0.7997 | 0.8513 0.8128 | 0.8644 0.8354 | 0.8581 0.8352 | 0.8351 | Ave | | 0.8694 | | | | 11.6 | | 20.0 | | | |
| Dibromofluoromethane (Surr) | 0.2637 0.2780 | 0.2706 0.2778 | 0.2755 0.2722 | 0.2741 0.2715 | 0.2773 | Ave | | 0.2734 | | | | 1.7 | | 20.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.3865 0.3924 | 0.4009 0.3761 | 0.3989 0.3779 | 0.3944 0.3785 | 0.3931 | Ave | | 0.3887 | | | | 2.4 | | 20.0 | | | |
| Toluene-d8 (Surr) | 1.3092 1.3312 | 1.3249 1.3424 | 1.3160 1.3051 | 1.3209 1.3535 | 1.3204 | Ave | | 1.3248 | | | | 1.2 | | 20.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.5821 0.5815 | 0.5763 0.5940 | 0.5705 0.5909 | 0.5829 0.5823 | 0.5753 | Ave | | 0.5818 | | | | 1.3 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 240-583544/3 | 10-0600.D |
| Level 2 | IC 240-583544/4 | 10-0601.D |
| Level 3 | IC 240-583544/5 | 10-0602.D |
| Level 4 | IC 240-583544/6 | 10-0603.D |
| Level 5 | IC 240-583544/7 | 10-0604.D |
| Level 6 | ICIS 240-583544/8 | 10-0605.D |
| Level 7 | IC 240-583544/9 | 10-0606.D |
| Level 8 | IC 240-583544/10 | 10-0607.D |
| Level 9 | IC 240-583544/11 | 10-0608.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Dichlorodifluoromethane | FB | Ave | 14797<br>729983 | 31856<br>1026050 | 70692<br>1352784 | 160324<br>1638359 | 326207 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chloromethane | FB | Ave | +++++<br>905476 | 41052<br>1450582 | 97423<br>1887867 | 239472<br>2398617 | 479202 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Vinyl chloride | FB | Ave | 23801<br>769777 | 35729<br>1201466 | 79735<br>1574055 | 192972<br>1974478 | 388268 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Butadiene | FB | Ave | 25160<br>941307 | 41227<br>1402727 | 91053<br>1790842 | 221619<br>2222136 | 451600 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Bromomethane | FB | Ave | 8733<br>366147 | 16741<br>597914 | 41881<br>774681 | 99902<br>956251 | 200652 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chloroethane | FB | Ave | 13682<br>426546 | 20084<br>696271 | 47048<br>896893 | 111966<br>1162868 | 223352 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Trichlorofluoromethane | FB | Ave | 18198<br>802109 | 34444<br>1184026 | 77339<br>1528859 | 195573<br>1867497 | 379698 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Dichlorofluoromethane | FB | Ave | 26732<br>868371 | 41747<br>1410077 | 94539<br>1820652 | 231503<br>2292164 | 459741 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethyl ether | FB | Ave | 12115<br>430991 | 17979<br>694563 | 47812<br>900864 | 110923<br>1140315 | 223530 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Acrolein | FB | Ave | +++++<br>113954 | 4702<br>176152 | 13469<br>235206 | 29623<br>297156 | 58080 | +++++<br>125 | 5.00<br>188 | 12.5<br>250 | 31.3<br>313 | 62.5 |
| 1,1-Dichloroethene | FB | Ave | 11230<br>387904 | 16637<br>588734 | 38033<br>773482 | 94904<br>972946 | 187198 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Ave | 9180<br>356462 | 13961<br>502482 | 28874<br>643805 | 78128<br>816903 | 155584 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Acetone | FB | Lin1 | 22348<br>311016 | 25202<br>470132 | 42428<br>621320 | 86423<br>764334 | 165763 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Iodomethane | FB | Ave | 19990<br>664105 | 28301<br>1082932 | 70231<br>1439444 | 175495<br>1799639 | 351086 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Carbon disulfide | FB | Ave | +++++<br>1193729 | 53988<br>1863503 | 118478<br>2479135 | 301103<br>3107935 | 604858 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Methyl acetate | FB | Ave | +++++<br>844700 | 35991<br>1310867 | 86731<br>1714912 | 212543<br>2134265 | 418437 | +++++<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| 3-Chloro-1-propene | FB | Ave | +++++<br>323375 | 13567<br>512411 | 30138<br>699332 | 73569<br>892951 | 162565 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Methylene Chloride | FB | Lin1 | 25092<br>460020 | 29771<br>752897 | 60880<br>990733 | 131329<br>1242370 | 254798 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Methyl-2-propanol | FB | Ave | +++++<br>509869 | 23574<br>795203 | 53636<br>1060227 | 129375<br>1319271 | 262384 | +++++<br>250 | 10.0<br>375 | 25.0<br>500 | 62.5<br>625 | 125 |
| Acrylonitrile | FB | Ave | 58530<br>2090187 | 90596<br>3221374 | 210359<br>4193182 | 525158<br>5237753 | 1042337 | 5.00<br>250 | 10.0<br>375 | 25.0<br>500 | 62.5<br>625 | 125 |
| Methyl tert-butyl ether | FB | Ave | 37460<br>1315563 | 55820<br>2102919 | 140005<br>2822621 | 349464<br>3544282 | 684863 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| trans-1,2-Dichloroethene | FB | Ave | 15006<br>445476 | 20552<br>716356 | 46705<br>946464 | 116666<br>1183390 | 232024 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Hexane | FB | Ave | 2917<br>108954 | 4781<br>150332 | 9360<br>196332 | 23015<br>243207 | 46988 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Vinyl acetate | FB | Ave | 22958<br>827129 | 33970<br>1377946 | 87905<br>1711187 | 214277<br>2108746 | 444995 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1-Dichloroethane | FB | Ave | 28231<br>977533 | 40734<br>1566807 | 101679<br>2053468 | 257634<br>2598267 | 508751 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Butanone (MEK) | FB | Ave | 13999<br>457605 | 20506<br>698437 | 48431<br>915893 | 117750<br>1148513 | 228778 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| cis-1,2-Dichloroethene | FB | Ave | +++++<br>492628 | 21099<br>804039 | 56139<br>1064399 | 133012<br>1318237 | 265295 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2,2-Dichloropropane | FB | Ave | +++++<br>118904 | 6164<br>188297 | 13490<br>245317 | 33109<br>293331 | 64797 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chlorobromomethane | FB | Ave | 7451<br>224055 | 10395<br>368396 | 23391<br>475110 | 59333<br>598570 | 119185 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Tetrahydrofuran | FB | Ave | +++++<br>294430 | 14122<br>455488 | 30975<br>592539 | 75384<br>760874 | 150463 | +++++<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Chloroform | FB | Ave | 25079<br>842938 | 38019<br>1372814 | 93262<br>1778900 | 228293<br>2243435 | 449794 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,1-Trichloroethane | FB | Ave | 21281<br>759757 | 33889<br>1196125 | 76132<br>1562618 | 195439<br>1952859 | 382774 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Cyclohexane | FB | Ave | 26093<br>1087606 | 44448<br>1543619 | 87813<br>1971451 | 246516<br>2485545 | 488240 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Carbon tetrachloride | FB | Ave | 18314<br>688291 | 27246<br>1021490 | 61081<br>1363176 | 166433<br>1709576 | 332820 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1-Dichloropropene | FB | Ave | 19703 | 27133 | 65109 | 165666 | 334048 | 0.500 | 1.00 | 2.50 | 6.25 | 12.5 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| | | | 671311 | 1022960 | 1335977 | 1702748 | | 25.0 | 37.5 | 50.0 | 62.5 | |
| Isobutyl alcohol | CBNZd5 | Ave | 13126<br>415035 | 17606<br>637992 | 40794<br>858161 | 106122<br>1056072 | 209697 | 12.5<br>625 | 25.0<br>938 | 62.5<br>1250 | 156<br>1563 | 313 |
| Benzene | FB | Ave | 51209<br>1791780 | 77002<br>2856871 | 188503<br>3741541 | 474203<br>4707687 | 935983 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2-Dichloroethane | FB | Ave | 26905<br>797327 | 35374<br>1274871 | 85450<br>1662707 | 212365<br>2104472 | 419331 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| n-Heptane | FB | Ave | 2474<br>110215 | 4940<br>150881 | 7409<br>188759 | 22254<br>238050 | 46426 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Trichloroethene | FB | Ave | 14903<br>455099 | 18925<br>714766 | 46004<br>938245 | 117712<br>1207263 | 236747 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Methylcyclohexane | FB | Ave | 19199<br>779548 | 32110<br>1082569 | 62569<br>1382592 | 174032<br>1743335 | 338938 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2-Dichloropropane | FB | Ave | 15420<br>534181 | 22817<br>857952 | 57295<br>1134074 | 146255<br>1435000 | 282267 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,4-Dioxane | FB | Ave | 2682<br>77291 | 3657<br>128684 | 7449<br>175070 | 20293<br>211864 | 40256 | 10.0<br>500 | 20.0<br>750 | 50.0<br>1000 | 125<br>1250 | 250 |
| Dibromomethane | FB | Ave | 9267<br>279653 | 12688<br>457751 | 30167<br>595072 | 75438<br>752842 | 151598 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Dichlorobromomethane | FB | Ave | 22328<br>663827 | 29366<br>1067974 | 71182<br>1401947 | 179115<br>1757438 | 351346 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Chloroethyl vinyl ether | FB | Ave | 18604<br>671257 | 28110<br>1074167 | 68205<br>1421628 | 168656<br>1765992 | 349678 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| cis-1,3-Dichloropropene | FB | Ave | 24070<br>791877 | 32660<br>1282255 | 83660<br>1682826 | 206401<br>2110334 | 420963 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 4-Methyl-2-pentanone (MIBK) | FB | Ave | 28262<br>1039636 | 45325<br>1607873 | 104594<br>2111332 | 264390<br>2623390 | 533618 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Toluene | CBNZd5 | Ave | 56357<br>1896450 | 83566<br>3038222 | 194919<br>3988277 | 503820<br>4964141 | 997924 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| trans-1,3-Dichloropropene | CBNZd5 | Ave | 22558<br>726241 | 31166<br>1178263 | 73927<br>1548325 | 189318<br>1939660 | 385543 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethyl methacrylate | CBNZd5 | Ave | 17408<br>583113 | 25504<br>919994 | 57851<br>1223653 | 148023<br>1500160 | 299580 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,2-Trichloroethane | CBNZd5 | Ave | 10485<br>372290 | 16123<br>607659 | 39078<br>798222 | 98365<br>983771 | 197943 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Tetrachloroethene | CBNZd5 | Ave | 10521 | 15943 | 35247 | 91466 | 187179 | 0.500 | 1.00 | 2.50 | 6.25 | 12.5 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| | | | 365901 | 572980 | 750410 | 947565 | | 25.0 | 37.5 | 50.0 | 62.5 | |
| 1,3-Dichloropropane | CBNZd5 | Ave | 19852<br>696509 | 29332<br>1104959 | 71595<br>1479742 | 180266<br>1843655 | 362872 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Hexanone | CBNZd5 | Ave | 19910<br>717376 | 30403<br>1090881 | 71256<br>1477655 | 186195<br>1777704 | 367498 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Chlorodibromomethane | CBNZd5 | Ave | 13666<br>447780 | 18605<br>728361 | 44315<br>973166 | 115150<br>1204482 | 237564 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethylene Dibromide | CBNZd5 | Ave | 11392<br>390938 | 16159<br>631519 | 41005<br>850492 | 101381<br>1043213 | 205781 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chlorobenzene | CBNZd5 | Ave | +++++<br>1234320 | 54497<br>1994996 | 133941<br>2666915 | 334562<br>3303350 | 658970 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,1,2-Tetrachloroethane | CBNZd5 | Ave | 12918<br>458382 | 18099<br>740108 | 48044<br>988545 | 121440<br>1233496 | 242886 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethylbenzene | CBNZd5 | Ave | 19786<br>678780 | 28824<br>1077819 | 69151<br>1446785 | 174886<br>1794936 | 359513 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| m-Xylene & p-Xylene | CBNZd5 | Ave | 25759<br>847185 | 35151<br>1340511 | 85757<br>1804031 | 222056<br>2254489 | 446828 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| o-Xylene | CBNZd5 | Ave | 23850<br>846874 | 36204<br>1347969 | 89055<br>1824406 | 222689<br>2265421 | 451730 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Styrene | CBNZd5 | Ave | 40571<br>1446352 | 59908<br>2318103 | 150055<br>3155657 | 373154<br>3860790 | 773960 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Bromoform | CBNZd5 | Ave | 8903<br>333766 | 12431<br>528287 | 31165<br>719186 | 81809<br>890567 | 168498 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Isopropylbenzene | CBNZd5 | Ave | 61987<br>2169942 | 89086<br>3397954 | 221217<br>4459029 | 559553<br>5659722 | 1129796 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,2,2-Tetrachloroethane | DCBd4 | Ave | 14806<br>509687 | 22075<br>797970 | 53736<br>1058827 | 131097<br>1307321 | 270216 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Bromobenzene | DCBd4 | Ave | 16290<br>571614 | 24699<br>917113 | 58680<br>1249589 | 145372<br>1544352 | 304655 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| trans-1,4-Dichloro-2-butene | DCBd4 | Ave | 6020<br>209796 | 8958<br>317413 | 20802<br>448156 | 51208<br>555487 | 103183 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| 1,2,3-Trichloropropane | DCBd4 | Ave | 4540<br>156090 | 6467<br>240669 | 15932<br>328286 | 40429<br>395856 | 81375 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| N-Propylbenzene | DCBd4 | Ave | 16066<br>588488 | 23999<br>927158 | 59347<br>1243686 | 149814<br>1578339 | 305331 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Chlorotoluene | DCBd4 | Ave | 15096<br>514883 | 21791<br>827740 | 53961<br>1101566 | 132202<br>1393342 | 275187 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,3,5-Trimethylbenzene | DCBd4 | Ave | 52536<br>1877892 | 79999<br>2976914 | 191059<br>3954235 | 484421<br>4907572 | 989457 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 4-Chlorotoluene | DCBd4 | Ave | 17384<br>539553 | 21624<br>858650 | 54177<br>1149414 | 140537<br>1463691 | 289266 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| tert-Butylbenzene | DCBd4 | Ave | 41584<br>1515467 | 64762<br>2367976 | 149330<br>3141717 | 392969<br>4046078 | 797278 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2,4-Trimethylbenzene | DCBd4 | Ave | 55264<br>1960911 | 81941<br>3114443 | 202818<br>4106216 | 513111<br>5131573 | 1049127 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| sec-Butylbenzene | DCBd4 | Ave | 61588<br>2251980 | 95687<br>3504470 | 220049<br>4576398 | 578654<br>5845874 | 1166310 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,3-Dichlorobenzene | DCBd4 | Ave | 31698<br>1019447 | 45143<br>1662486 | 109650<br>2195872 | 273159<br>2775406 | 553845 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 4-Isopropyltoluene | DCBd4 | Ave | 52771<br>1917178 | 78659<br>3003394 | 189781<br>3927856 | 489262<br>4975236 | 989598 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,4-Dichlorobenzene | DCBd4 | Ave | 33683<br>1054629 | 43696<br>1692546 | 113090<br>2237929 | 278045<br>2824340 | 560667 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| n-Butylbenzene | DCBd4 | Ave | 49449<br>1782248 | 74806<br>2800472 | 173845<br>3660826 | 458309<br>4691055 | 924508 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2-Dichlorobenzene | DCBd4 | Ave | 29769<br>988849 | 42310<br>1579480 | 103448<br>2082118 | 264898<br>2649644 | 527296 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2-Dibromo-3-Chloropropane | DCBd4 | Ave | 2704<br>113318 | 4819<br>170382 | 10178<br>227625 | 26375<br>293902 | 54837 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2,4-Trichlorobenzene | DCBd4 | Ave | 22707<br>704853 | 29434<br>1137681 | 73058<br>1506300 | 185167<br>1930198 | 374315 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Hexachlorobutadiene | DCBd4 | Ave | 9086<br>302809 | 13024<br>482642 | 29001<br>618022 | 77086<br>823414 | 156001 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Naphthalene | DCBd4 | Ave | 40490<br>1385413 | 57698<br>2159519 | 141808<br>2875495 | 358297<br>3640159 | 714299 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2,3-Trichlorobenzene | DCBd4 | Ave | 17745<br>603337 | 25387<br>949750 | 64359<br>1275038 | 156827<br>1631169 | 316638 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Dibromofluoromethane (Surr) | FB | Ave | 165667<br>168139 | 162289<br>172191 | 165169<br>166547 | 163722<br>165280 | 167537 | 9.34<br>9.34 | 9.34<br>9.34 | 9.34<br>9.34 | 9.34<br>9.34 | 9.34 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 242780<br>237326 | 240494<br>233122 | 239134<br>231247 | 235620<br>230403 | 237520 | 9.34<br>9.34 | 9.34<br>9.34 | 9.34<br>9.34 | 9.34<br>9.34 | 9.34 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Toluene-d8 (Surr) | CBNZd5 | Ave | 642691 | 610670 | 616810 | 611474 | 626906 | 9.34 | 9.34 | 9.34 | 9.34 | 9.34 |
| | | | 629882 | 639708 | 635121 | 647769 | | 9.34 | 9.34 | 9.34 | 9.34 | |
| 4-Bromofluorobenzene (Surr) | CBNZd5 | Ave | 285746 | 265625 | 267364 | 269833 | 273152 | 9.34 | 9.34 | 9.34 | 9.34 | 9.34 |
| | | | 275157 | 283075 | 287583 | 278684 | | 9.34 | 9.34 | 9.34 | 9.34 | |

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 240-583544/3 | 10-0600.D |
| Level 2 | IC 240-583544/4 | 10-0601.D |
| Level 3 | IC 240-583544/5 | 10-0602.D |
| Level 4 | IC 240-583544/6 | 10-0603.D |
| Level 5 | IC 240-583544/7 | 10-0604.D |
| Level 6 | ICIS 240-583544/8 | 10-0605.D |
| Level 7 | IC 240-583544/9 | 10-0606.D |
| Level 8 | IC 240-583544/10 | 10-0607.D |
| Level 9 | IC 240-583544/11 | 10-0608.D |

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Dichlorodifluoromethane | 2.6<br>-3.9 | 15.7<br>-3.7 | 2.7<br>-6.2 | -6.5 | -5.9 | 5.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Chloromethane | +++++<br>-1.7 | 7.8<br>-2.8 | 2.3<br>-0.7 | 1.0 | -0.1 | -5.7 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| Vinyl chloride | 37.1<br>-6.5 | 7.7<br>-6.9 | -3.8<br>-6.1 | -6.5 | -7.0 | -7.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Butadiene | 26.9<br>-4.4 | 8.9<br>-7.3 | -3.8<br>-7.5 | -6.0 | -5.3 | -1.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Bromomethane | 5.4<br>-2.5 | 5.8<br>-4.0 | 5.9<br>-4.7 | 1.5 | 0.7 | -8.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Chloroethane | 37.1<br>-5.8 | 5.4<br>-7.8 | -1.2<br>-3.8 | -5.6 | -6.9 | -11.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Trichlorofluoromethane | 10.3<br>-3.0 | 9.3<br>-4.8 | -1.8<br>-6.5 | -0.3 | -4.3 | 1.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dichlorofluoromethane | 32.4<br>-5.6 | 8.3<br>-7.4 | -1.9<br>-6.3 | -3.5 | -5.3 | -10.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Ethyl ether | 25.1<br>-3.1 | -2.8<br>-4.5 | 3.4<br>-2.8 | -3.7 | -4.0 | -7.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Acrolein | +++++<br>-3.9 | -0.6<br>-2.5 | 14.0<br>-0.9 | 0.7 | -2.4 | -4.4 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1-Dichloroethene | 33.6<br>-5.4 | 3.6<br>-5.6 | -5.2<br>-4.5 | -5.0 | -7.4 | -4.1 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 30.9<br>-3.2 | 4.2<br>-5.8 | -13.7<br>-3.9 | -6.3 | -7.8 | 5.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Acetone | 15.5<br>-0.6 | -9.5<br>0.7 | -5.4<br>0.1 | -2.1 | 1.7 | -0.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Iodomethane | 31.4<br>-3.8 | -2.6<br>-2.9 | -3.3<br>-2.4 | -3.0 | -4.0 | -9.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Carbon disulfide | +++++ | 10.5 | -3.0 | -1.0 | -1.7 | -3.1 | | 50 | 30 | 30 | 30 | 30 |
| | -1.6 | -0.5 | 0.3 | | | | 30 | 30 | 30 | | | |
| Methyl acetate | +++++ | 5.6 | 1.8 | 0.2 | -2.5 | -1.7 | | 50 | 30 | 30 | 30 | 30 |
| | -0.8 | -1.4 | -1.3 | | | | 30 | 30 | 30 | | | |
| 3-Chloro-1-propene | +++++ | 4.2 | -7.4 | -9.3 | -0.9 | -1.5 | | 50 | 30 | 30 | 30 | 30 |
| | 1.5 | 5.3 | 8.1 | | | | 30 | 30 | 30 | | | |
| Methylene Chloride | 14.6 | -12.1 | 0.6 | -0.1 | 0.9 | -6.8 | 50 | 30 | 30 | 30 | 30 | 30 |
| | 0.3 | 0.7 | 1.9 | | | | 30 | 30 | 30 | | | |
| 2-Methyl-2-propanol | +++++ | 11.6 | 1.6 | -1.6 | -1.3 | -4.2 | | 50 | 30 | 30 | 30 | 30 |
| | -2.9 | -1.6 | -1.5 | | | | 30 | 30 | 30 | | | |
| Acrylonitrile | 28.2 | 3.9 | -3.4 | -3.2 | -5.0 | -4.9 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -4.6 | -5.7 | -5.3 | | | | 30 | 30 | 30 | | | |
| Methyl tert-butyl ether | 25.8 | -1.8 | -1.4 | -1.2 | -4.3 | -8.2 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -4.5 | -2.6 | -1.7 | | | | 30 | 30 | 30 | | | |
| trans-1,2-Dichloroethene | 44.5 | 3.7 | -5.7 | -5.5 | -7.1 | -10.9 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -6.8 | -6.4 | -5.9 | | | | 30 | 30 | 30 | | | |
| Hexane | 34.0 | 15.0 | -9.9 | -11.0 | -10.2 | 4.0 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -6.7 | -7.4 | -7.8 | | | | 30 | 30 | 30 | | | |
| Vinyl acetate | 24.1 | -3.8 | -0.4 | -2.5 | 0.1 | -7.1 | 50 | 30 | 30 | 30 | 30 | 30 |
| | 0.7 | -5.0 | -5.9 | | | | 30 | 30 | 30 | | | |
| 1,1-Dichloroethane | 28.5 | -2.9 | -3.0 | -1.3 | -3.7 | -7.6 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -3.6 | -4.0 | -2.4 | | | | 30 | 30 | 30 | | | |
| 2-Butanone (MEK) | 36.7 | 4.9 | -0.9 | -3.2 | -7.1 | -7.1 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -7.8 | -8.1 | -7.4 | | | | 30 | 30 | 30 | | | |
| cis-1,2-Dichloroethene | +++++ | 0.5 | 7.0 | 1.8 | 0.4 | -6.9 | | 50 | 30 | 30 | 30 | 30 |
| | -1.2 | -0.6 | -1.0 | | | | 30 | 30 | 30 | | | |
| 2,2-Dichloropropane | +++++ | 20.2 | 5.2 | 3.7 | 0.3 | -8.0 | | 50 | 30 | 30 | 30 | 30 |
| | -5.3 | -6.2 | -9.9 | | | | 30 | 30 | 30 | | | |
| Chlorobromomethane | 42.1 | 3.8 | -6.5 | -4.8 | -5.5 | -11.2 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -5.1 | -7.0 | -5.8 | | | | 30 | 30 | 30 | | | |
| Tetrahydrofuran | +++++ | 15.7 | 1.6 | -0.8 | -2.1 | -4.3 | | 50 | 30 | 30 | 30 | 30 |
| | -3.7 | -4.8 | -1.7 | | | | 30 | 30 | 30 | | | |
| Chloroform | 28.8 | 2.2 | 0.3 | -1.4 | -4.0 | -10.1 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -4.8 | -6.2 | -4.9 | | | | 30 | 30 | 30 | | | |
| 1,1,1-Trichloroethane | 26.5 | 5.5 | -5.2 | -2.3 | -5.4 | -6.2 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -4.0 | -4.7 | -4.2 | | | | 30 | 30 | 30 | | | |
| Cyclohexane | 21.7 | 8.5 | -14.2 | -3.3 | -5.3 | 5.4 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -2.8 | -5.6 | -4.3 | | | | 30 | 30 | 30 | | | |
| Carbon tetrachloride | 27.3 | -0.8 | -11.0 | -2.6 | -3.8 | -0.6 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -4.0 | -2.7 | -1.9 | | | | 30 | 30 | 30 | | | |
| 1,1-Dichloropropene | 35.4 | -2.3 | -6.2 | -4.2 | -4.5 | -4.1 | 50 | 30 | 30 | 30 | 30 | 30 |
| | -5.0 | -5.7 | -3.4 | | | | 30 | 30 | 30 | | | |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Isobutyl alcohol | 41.6<br>-5.5 | 1.2<br>-6.6 | -7.8<br>-6.5 | -2.9 | -6.4 | -7.1 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Benzene | 27.0<br>-4.3 | 0.0<br>-4.8 | -2.0<br>-3.6 | -1.1 | -3.5 | -7.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichloroethane | 45.1<br>-7.1 | -0.1<br>-7.9 | -3.4<br>-6.3 | -3.6 | -5.9 | -10.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| n-Heptane | 19.4<br>-1.6 | 24.8<br>-6.5 | -25.1<br>-5.2 | -9.6 | -6.8 | 10.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Trichloroethene | 44.4<br>-6.5 | -4.0<br>-6.7 | -6.6<br>-3.5 | -4.1 | -4.6 | -8.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Methylcyclohexane | 25.9<br>-4.1 | 10.2<br>-6.9 | -14.0<br>-5.6 | -4.0 | -7.6 | 6.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichloropropane | 26.6<br>-4.8 | -1.9<br>-4.4 | -1.4<br>-2.7 | 1.0 | -3.6 | -8.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,4-Dioxane | 46.9<br>-4.8 | 4.9<br>-1.5 | -14.5<br>-4.2 | -6.5 | -8.3 | -12.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dibromomethane | 40.9<br>-6.0 | 1.0<br>-7.1 | -3.9<br>-5.5 | -3.5 | -4.2 | -11.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dichlorobromomethane | 44.1<br>-6.9 | -0.7<br>-7.1 | -3.7<br>-6.3 | -2.7 | -5.7 | -11.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 2-Chloroethyl vinyl ether | 25.0<br>-2.5 | -1.1<br>-2.0 | -4.0<br>-2.1 | -4.7 | -2.3 | -6.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| cis-1,3-Dichloropropene | 33.7<br>-3.8 | -5.0<br>-4.0 | -2.6<br>-3.2 | -3.6 | -2.8 | -8.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 4-Methyl-2-pentanone (MIBK) | 24.1<br>-4.6 | 4.2<br>-4.8 | -3.8<br>-4.9 | -2.4 | -2.6 | -5.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Toluene | 30.8<br>-3.1 | 3.3<br>-6.6 | -5.2<br>-5.4 | -0.8 | -4.2 | -8.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| trans-1,3-Dichloropropene | 35.9<br>-2.5 | 0.0<br>-5.9 | -6.7<br>-4.1 | -3.3 | -4.0 | -9.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Ethyl methacrylate | 33.4<br>-3.2 | 4.1<br>-5.4 | -7.1<br>-5.7 | -3.8 | -5.1 | -7.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1,2-Trichloroethane | 24.2<br>-1.1 | 1.7<br>-4.6 | -3.0<br>-4.4 | -1.2 | -3.0 | -8.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Tetrachloroethene | 30.2<br>-2.6 | 5.1<br>-6.3 | -8.6<br>-3.7 | -3.9 | -4.2 | -6.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,3-Dichloropropane | 27.2<br>-2.8 | 0.1<br>-4.4 | -3.9<br>-3.1 | -2.0 | -3.8 | -7.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 2-Hexanone | 26.7<br>-4.6 | 3.1<br>-5.1 | -5.0<br>-7.1 | 0.6 | -3.2 | -5.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Chlorodibromomethane | 34.5<br>-1.5 | -2.5<br>-3.4 | -8.6<br>-2.7 | -3.9 | -3.3 | -8.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1 | Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 | Calibration End Date: 08/10/2023 18:36 | Calibration ID: 71482

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Ethylene Dibromide | 28.8<br>-2.0 | -2.7<br>-3.0 | -2.9<br>-3.2 | -2.8 | -3.8 | -8.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Chlorobenzene | +++++<br>-0.2 | 5.7<br>-2.1 | 2.2<br>-1.3 | 3.3 | -0.8 | -6.8 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1,1,2-Tetrachloroethane | 25.4<br>-1.3 | -6.5<br>-3.2 | -2.3<br>-1.8 | 0.0 | -2.5 | -7.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Ethylbenzene | 29.5<br>-3.1 | 0.4<br>-4.5 | -5.2<br>-3.6 | -2.9 | -2.7 | -7.8 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| m-Xylene & p-Xylene | 34.4<br>-3.9 | -2.3<br>-5.0 | -6.2<br>-3.4 | -1.7 | -3.6 | -8.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| o-Xylene | 24.5<br>-3.4 | 0.6<br>-3.9 | -2.6<br>-3.0 | -1.4 | -2.5 | -8.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Styrene | 24.7<br>-2.2 | -2.0<br>-2.2 | -3.4<br>-2.7 | -2.7 | -1.7 | -7.8 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Bromoform | 23.8<br>0.9 | -7.9<br>0.9 | -9.2<br>1.7 | -3.5 | -3.1 | -3.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Isopropylbenzene | 28.8<br>-3.0 | -1.4<br>-6.5 | -3.7<br>-3.5 | -1.4 | -2.9 | -6.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1,2,2-Tetrachloroethane | 29.7<br>-6.3 | 1.6<br>-4.8 | -1.0<br>-8.1 | -1.6 | -2.2 | -7.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Bromobenzene | 26.4<br>-4.6 | 0.6<br>-0.5 | -4.2<br>-3.9 | -3.4 | -2.4 | -7.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| trans-1,4-Dichloro-2-butene | 30.8<br>-7.5 | 2.2<br>-0.1 | -4.9<br>-3.2 | -4.6 | -7.4 | -5.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2,3-Trichloropropane | 31.3<br>-6.7 | -1.8<br>-2.6 | -3.1<br>-8.2 | 0.2 | -2.8 | -6.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| N-Propylbenzene | 23.9<br>-4.1 | -2.8<br>-1.6 | -3.7<br>-2.4 | -1.0 | -2.7 | -5.8 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 2-Chlorotoluene | 29.6<br>-4.8 | -1.8<br>-3.0 | -2.6<br>-4.1 | -2.8 | -2.4 | -8.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,3,5-Trimethylbenzene | 25.8<br>-4.5 | 0.6<br>-2.9 | -3.8<br>-5.8 | -0.6 | -2.1 | -6.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 4-Chlorotoluene | 41.7<br>-6.1 | -7.4<br>-3.8 | -7.1<br>-4.3 | -1.8 | -2.6 | -8.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| tert-Butylbenzene | 24.1<br>-5.3 | 1.5<br>-3.8 | -6.2<br>-3.1 | 0.5 | -1.7 | -6.1 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2,4-Trimethylbenzene | 26.2<br>-4.6 | -1.7<br>-3.8 | -2.5<br>-6.0 | 0.4 | -1.0 | -7.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| sec-Butylbenzene | 25.0<br>-4.7 | 2.0<br>-4.7 | -6.1<br>-4.9 | 0.6 | -2.2 | -5.1 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,3-Dichlorobenzene | 33.9<br>-5.8 | 0.2<br>-4.8 | -2.5<br>-6.0 | -1.1 | -3.3 | -10.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland Job No.: 240-191865-1 Analy Batch No.: 583544

SDG No.:

Instrument ID: A3UX10 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/10/2023 15:15 Calibration End Date: 08/10/2023 18:36 Calibration ID: 71482

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| 4-Isopropyltoluene | 25.9<br>-3.9 | -1.4<br>-3.8 | -4.7<br>-4.8 | 0.1 | -2.4 | -5.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,4-Dichlorobenzene | 39.3<br>-6.2 | -5.1<br>-5.0 | -1.6<br>-6.3 | -1.4 | -4.2 | -9.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| n-Butylbenzene | 26.2<br>-4.2 | 0.3<br>-4.1 | -6.6<br>-3.9 | 0.3 | -2.5 | -5.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichlorobenzene | 32.3<br>-5.9 | -1.3<br>-5.1 | -3.3<br>-5.6 | 0.9 | -3.2 | -8.8 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dibromo-3-Chloropropane | 14.6<br>-3.2 | 7.3<br>-1.0 | -9.2<br>-0.1 | -4.2 | -4.0 | -0.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2,4-Trichlorobenzene | 40.3<br>-5.8 | -4.5<br>-4.5 | -5.1<br>-4.4 | -2.0 | -4.5 | -9.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Hexachlorobutadiene | 34.5<br>-4.2 | 1.3<br>-6.1 | -9.7<br>-2.2 | -2.2 | -4.6 | -6.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Naphthalene | 31.4<br>-6.0 | -1.6<br>-4.2 | -3.2<br>-5.2 | -0.3 | -4.2 | -6.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2,3-Trichlorobenzene | 30.3<br>-6.5 | -2.1<br>-3.9 | -0.6<br>-3.9 | -1.3 | -3.9 | -8.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dibromofluoromethane (Surr) | -3.5<br>1.6 | -1.0<br>-0.4 | 0.8<br>-0.7 | 0.2 | 1.4 | 1.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichloroethane-d4 (Surr) | -0.6<br>-3.3 | 3.1<br>-2.8 | 2.6<br>-2.6 | 1.5 | 1.1 | 0.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Toluene-d8 (Surr) | -1.2<br>1.3 | 0.0<br>-1.5 | -0.7<br>2.2 | -0.3 | -0.3 | 0.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 4-Bromofluorobenzene (Surr) | 0.1<br>2.1 | -0.9<br>1.6 | -1.9<br>0.1 | 0.2 | -1.1 | 0.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 10-Aug-2023 15:15:30 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-003
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:02 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 13:52:20

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.717 | 5.717 | 0.000 | 98 | 672601 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.438 | 8.438 | 0.000 | 95 | 525579 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.722 | 10.722 | 0.000 | 97 | 313260 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.137 | 5.137 | 0.000 | 92 | 165667 | 9.34 | 9.01 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.433 | 5.433 | 0.000 | 96 | 242780 | 9.34 | 9.29 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.101 | 7.101 | 0.000 | 95 | 642691 | 9.34 | 9.23 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.574 | 9.574 | 0.000 | 87 | 285746 | 9.34 | 9.35 | |
| 9 Dichlorodifluoromethane | 85 | 1.634 | 1.634 | 0.000 | 99 | 14797 | 0.5000 | 0.5130 | |
| 10 Chloromethane | 50 | | 1.836 | | | | ND | ND | U |
| 11 Vinyl chloride | 62 | 1.954 | 1.954 | 0.000 | 71 | 23801 | 0.5000 | 0.6853 | |
| 12 Butadiene | 54 | 1.966 | 1.966 | 0.000 | 91 | 25160 | 0.5000 | 0.6343 | |
| 13 Bromomethane | 94 | 2.285 | 2.285 | 0.000 | 91 | 8733 | 0.5000 | 0.5271 | |
| 14 Chloroethane | 64 | 2.368 | 2.368 | 0.000 | 97 | 13682 | 0.5000 | 0.6853 | |
| 15 Dichlorofluoromethane | 67 | 2.605 | 2.605 | 0.000 | 97 | 26732 | 0.5000 | 0.6620 | |
| 16 Trichlorofluoromethane | 101 | 2.605 | 2.605 | 0.000 | 58 | 18198 | 0.5000 | 0.5516 | |
| 17 Ethyl ether | 59 | 2.877 | 2.877 | 0.000 | 93 | 12115 | 0.5000 | 0.6253 | |
| 18 Acrolein | 56 | | 3.007 | | | | ND | ND | U |
| 19 1,1-Dichloroethene | 96 | 3.102 | 3.102 | 0.000 | 89 | 11230 | 0.5000 | 0.6678 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.137 | 3.137 | 0.000 | 71 | 9180 | 0.5000 | 0.6543 | |
| 21 Acetone | 43 | 3.149 | 3.149 | 0.000 | 99 | 22348 | 1.00 | 1.16 | |
| 22 Iodomethane | 142 | 3.244 | 3.244 | 0.000 | 97 | 19990 | 0.5000 | 0.6568 | |
| 24 Carbon disulfide | 76 | | 3.315 | | | | ND | ND | U |
| 27 Methyl acetate | 43 | | 3.433 | | | | ND | ND | U |
| 26 3-Chloro-1-propene | 76 | | 3.445 | | | | ND | ND | U |
| 28 Methylene Chloride | 84 | 3.563 | 3.563 | 0.000 | 95 | 25092 | 0.5000 | 0.5732 | |
| 29 2-Methyl-2-propanol | 59 | | 3.670 | | | | ND | ND | U |
| 31 Acrylonitrile | 53 | 3.788 | 3.788 | 0.000 | 98 | 58530 | 5.00 | 6.41 | |
| 32 Methyl tert-butyl ether | 73 | 3.812 | 3.812 | 0.000 | 98 | 37460 | 0.5000 | 0.6292 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.812 | 3.812 | 0.000 | 83 | 15006 | 0.5000 | 0.7227 | |
| 33 Hexane | 86 | 4.060 | 4.060 | 0.000 | 93 | 2917 | 0.5000 | 0.6700 | |
| 35 Vinyl acetate | 43 | 4.202 | 4.202 | 0.000 | 97 | 22958 | 0.5000 | 0.6205 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.214 | 4.214 | 0.000 | 97 | 28231 | 0.5000 | 0.6425 | |
| 41 2-Butanone (MEK) | 43 | 4.699 | 4.699 | 0.000 | 73 | 13999 | 1.00 | 1.37 | |
| 40 cis-1,2-Dichloroethene | 96 | | 4.711 | | | | ND | ND | U |
| 39 2,2-Dichloropropane | 97 | | 4.723 | | | | ND | ND | U |
| 45 Chlorobromomethane | 128 | 4.912 | 4.912 | 0.000 | 89 | 7451 | 0.5000 | 0.7104 | |
| 46 Tetrahydrofuran | 42 | | 4.936 | | | | ND | ND | U |
| 47 Chloroform | 83 | 5.007 | 5.007 | 0.000 | 97 | 25079 | 0.5000 | 0.6438 | |
| 48 1,1,1-Trichloroethane | 97 | 5.149 | 5.149 | 0.000 | 95 | 21281 | 0.5000 | 0.6323 | |
| 49 Cyclohexane | 56 | 5.208 | 5.208 | 0.000 | 92 | 26093 | 0.5000 | 0.6083 | |
| 50 1,1-Dichloropropene | 75 | 5.279 | 5.279 | 0.000 | 87 | 19703 | 0.5000 | 0.6772 | |
| 51 Carbon tetrachloride | 117 | 5.279 | 5.279 | 0.000 | 82 | 18314 | 0.5000 | 0.6367 | |
| 52 Isobutyl alcohol | 41 | 5.350 | 5.350 | 0.000 | 94 | 13126 | 12.5 | 17.7 | |
| 53 Benzene | 78 | 5.456 | 5.456 | 0.000 | 95 | 51209 | 0.5000 | 0.6349 | |
| 54 1,2-Dichloroethane | 62 | 5.504 | 5.504 | 0.000 | 94 | 26905 | 0.5000 | 0.7255 | |
| 56 n-Heptane | 100 | 5.693 | 5.693 | 0.000 | 94 | 2474 | 0.5000 | 0.5970 | |
| 58 Trichloroethene | 130 | 6.024 | 6.024 | 0.000 | 93 | 14903 | 0.5000 | 0.7218 | |
| 60 Methylcyclohexane | 83 | 6.226 | 6.226 | 0.000 | 97 | 19199 | 0.5000 | 0.6294 | |
| 61 1,2-Dichloropropane | 63 | 6.249 | 6.249 | 0.000 | 89 | 15420 | 0.5000 | 0.6331 | |
| 64 1,4-Dioxane | 88 | 6.308 | 6.308 | 0.000 | 60 | 2682 | 10.0 | 14.7 | |
| 63 Dibromomethane | 93 | 6.332 | 6.332 | 0.000 | 95 | 9267 | 0.5000 | 0.7044 | |
| 65 Dichlorobromomethane | 83 | 6.474 | 6.474 | 0.000 | 95 | 22328 | 0.5000 | 0.7206 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.711 | 6.711 | 0.000 | 91 | 18604 | 1.00 | 1.25 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.853 | 6.853 | 0.000 | 89 | 24070 | 0.5000 | 0.6684 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.983 | 6.983 | 0.000 | 97 | 28262 | 1.00 | 1.24 | |
| 70 Toluene | 91 | 7.160 | 7.160 | 0.000 | 97 | 56357 | 0.5000 | 0.6541 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.361 | 7.361 | 0.000 | 98 | 22558 | 0.5000 | 0.6793 | |
| 72 Ethyl methacrylate | 69 | 7.397 | 7.397 | 0.000 | 97 | 17408 | 0.5000 | 0.6670 | |
| 73 1,1,2-Trichloroethane | 97 | 7.551 | 7.551 | 0.000 | 90 | 10485 | 0.5000 | 0.6210 | |
| 74 Tetrachloroethene | 164 | 7.634 | 7.634 | 0.000 | 93 | 10521 | 0.5000 | 0.6512 | |
| 75 1,3-Dichloropropane | 76 | 7.693 | 7.693 | 0.000 | 95 | 19852 | 0.5000 | 0.6361 | |
| 76 2-Hexanone | 43 | 7.740 | 7.740 | 0.000 | 95 | 19910 | 1.00 | 1.27 | |
| 78 Chlorodibromomethane | 129 | 7.894 | 7.894 | 0.000 | 91 | 13666 | 0.5000 | 0.6725 | |
| 80 Ethylene Dibromide | 107 | 8.012 | 8.012 | 0.000 | 99 | 11392 | 0.5000 | 0.6438 | |
| 82 Chlorobenzene | 112 | | 8.474 | | | | ND | ND | U |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.545 | 8.545 | 0.000 | 92 | 12918 | 0.5000 | 0.6268 | |
| 84 Ethylbenzene | 106 | 8.557 | 8.557 | 0.000 | 99 | 19786 | 0.5000 | 0.6474 | |
| 85 m-Xylene & p-Xylene | 106 | 8.675 | 8.675 | 0.000 | 98 | 25759 | 0.5000 | 0.6722 | |
| 86 o-Xylene | 106 | 9.054 | 9.054 | 0.000 | 97 | 23850 | 0.5000 | 0.6224 | |
| 87 Styrene | 104 | 9.065 | 9.065 | 0.000 | 90 | 40571 | 0.5000 | 0.6233 | |
| 88 Bromoform | 173 | 9.255 | 9.255 | 0.000 | 97 | 8903 | 0.5000 | 0.6192 | |
| 89 Isopropylbenzene | 105 | 9.397 | 9.397 | 0.000 | 98 | 61987 | 0.5000 | 0.6441 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.693 | 9.693 | 0.000 | 97 | 14806 | 0.5000 | 0.6486 | |
| 93 Bromobenzene | 156 | 9.716 | 9.716 | 0.000 | 95 | 16290 | 0.5000 | 0.6318 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.740 | 9.740 | 0.000 | 68 | 6020 | 0.5000 | 0.6541 | |
| 94 1,2,3-Trichloropropane | 110 | 9.764 | 9.764 | 0.000 | 79 | 4540 | 0.5000 | 0.6564 | |
| 96 N-Propylbenzene | 120 | 9.811 | 9.811 | 0.000 | 99 | 16066 | 0.5000 | 0.6196 | |
| 97 2-Chlorotoluene | 126 | 9.906 | 9.906 | 0.000 | 95 | 15096 | 0.5000 | 0.6479 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.988 | 9.988 | 0.000 | 95 | 52536 | 0.5000 | 0.6288 | |
| 99 4-Chlorotoluene | 126 | 10.024 | 10.024 | 0.000 | 99 | 17384 | 0.5000 | 0.7087 | |
| 100 tert-Butylbenzene | 119 | 10.296 | 10.296 | 0.000 | 93 | 41584 | 0.5000 | 0.6206 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.355 | 10.355 | 0.000 | 98 | 55264 | 0.5000 | 0.6311 | |
| 103 sec-Butylbenzene | 105 | 10.521 | 10.521 | 0.000 | 96 | 61588 | 0.5000 | 0.6249 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.639 | 10.639 | 0.000 | 96 | 31698 | 0.5000 | 0.6697 | |
| 105 4-Isopropyltoluene | 119 | 10.663 | 10.663 | 0.000 | 96 | 52771 | 0.5000 | 0.6297 | |
| 106 1,4-Dichlorobenzene | 146 | 10.746 | 10.746 | 0.000 | 95 | 33683 | 0.5000 | 0.6965 | |
| 109 n-Butylbenzene | 91 | 11.077 | 11.077 | 0.000 | 98 | 49449 | 0.5000 | 0.6312 | |
| 110 1,2-Dichlorobenzene | 146 | 11.101 | 11.101 | 0.000 | 94 | 29769 | 0.5000 | 0.6613 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.882 | 11.882 | 0.000 | 74 | 2704 | 0.5000 | 0.5731 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.710 | 12.710 | 0.000 | 94 | 22707 | 0.5000 | 0.7014 | |
| 114 Hexachlorobutadiene | 225 | 12.852 | 12.852 | 0.000 | 95 | 9086 | 0.5000 | 0.6727 | |
| 115 Naphthalene | 128 | 12.982 | 12.982 | 0.000 | 98 | 40490 | 0.5000 | 0.6572 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.231 | 13.231 | 0.000 | 94 | 17745 | 0.5000 | 0.6515 | |
| S 156 Total BTEX | 1 | | | | 0 | | 2.50 | 3.23 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 2.00 | 2.66 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 1.00 | 1.29 | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: | 0.40 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 0.40 | Units: uL | |
| VMRGAS_00488 | Amount Added: | 0.40 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

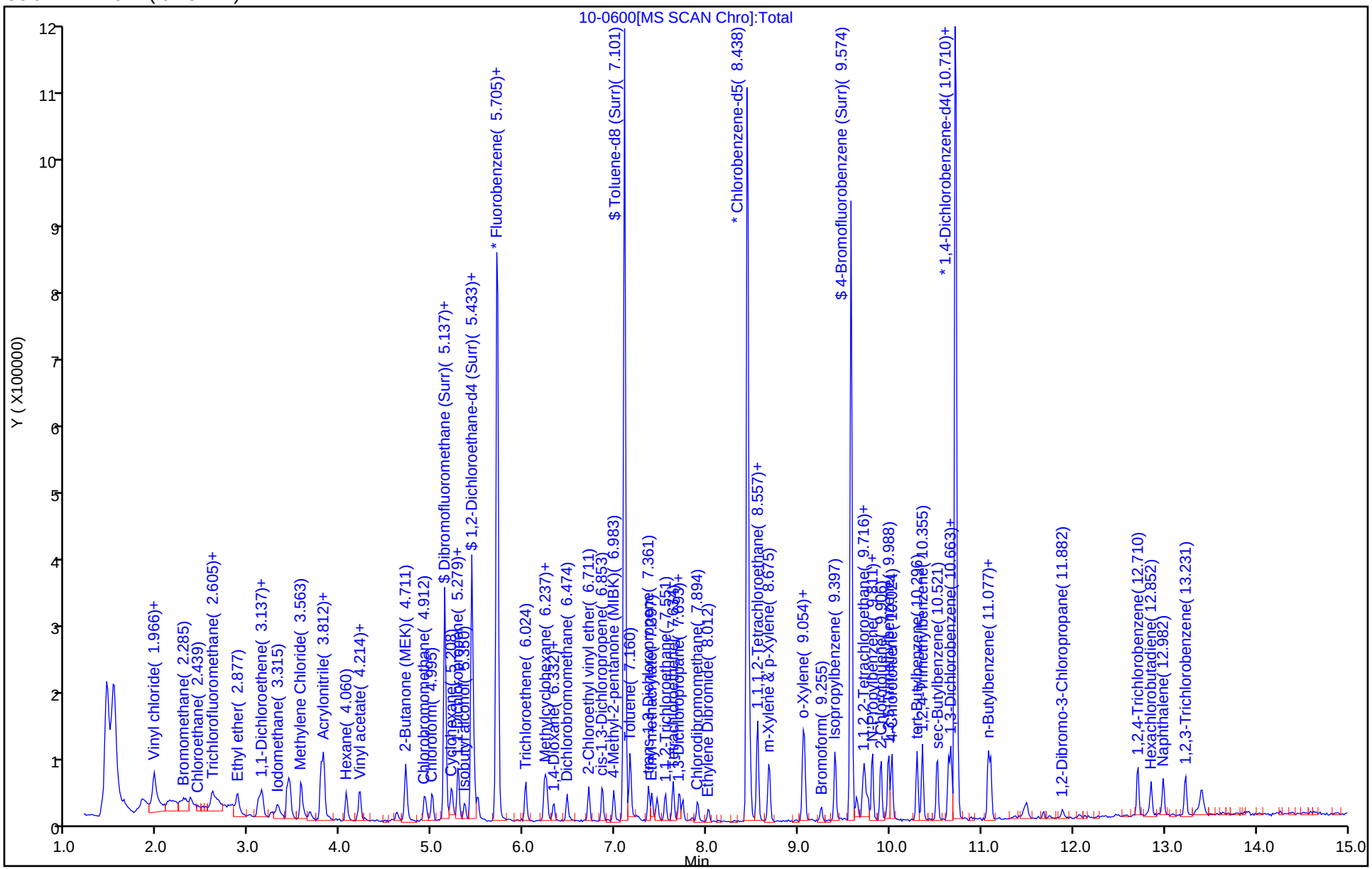
Report Date: 11-Aug-2023 13:58:03 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 15:15:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



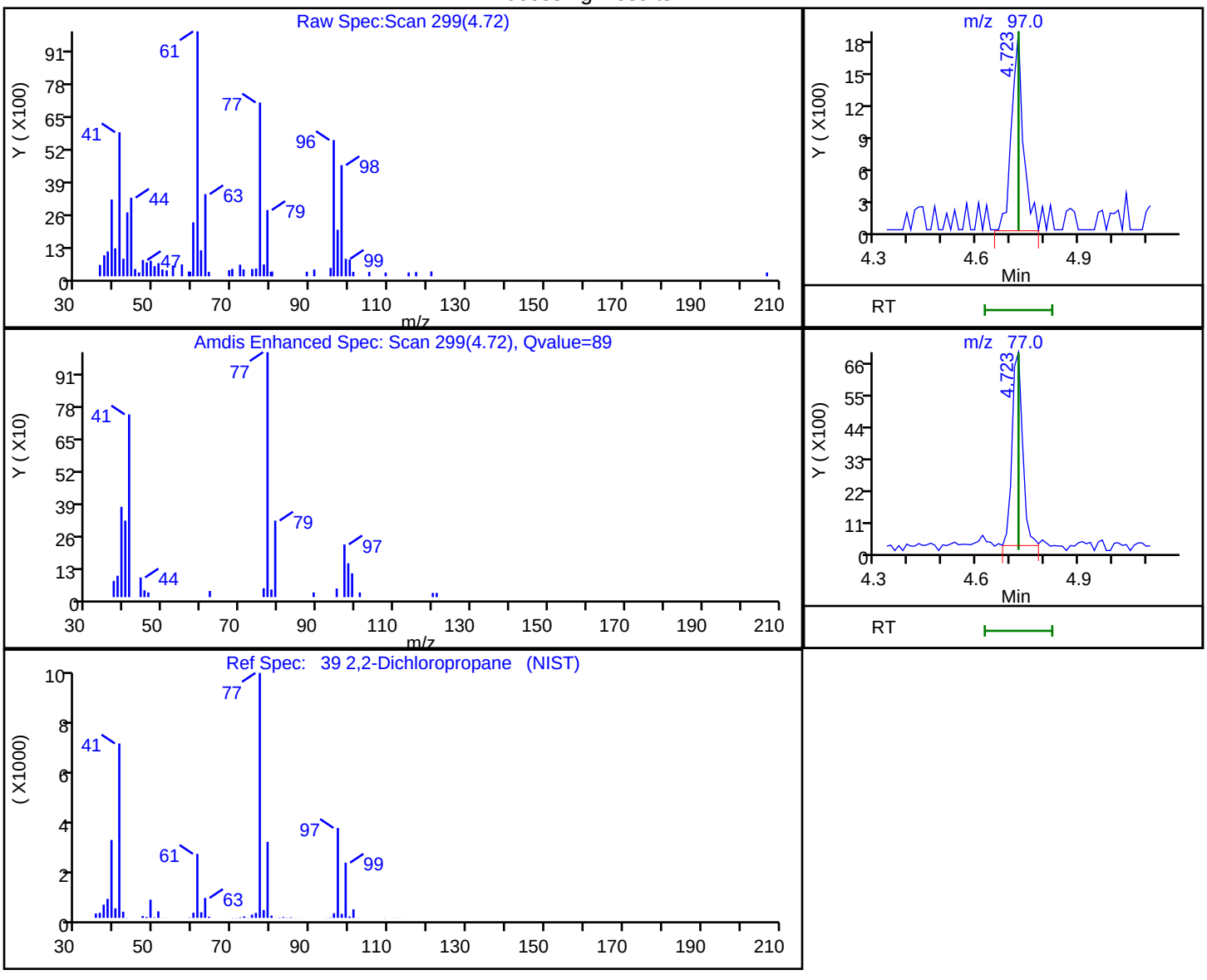
User Disabled Compound Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Injection Date: 10-Aug-2023 15:15:30 Instrument ID: A3UX10
Lims ID: ic
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 39 2,2-Dichloropropane, CAS: 594-20-7

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 4.72 | 97.00 | 4424 | 0.823449 |
| 4.72 | 77.00 | 14721 | |

Reviewer: HE9L, 11-Aug-2023 13:54:57 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

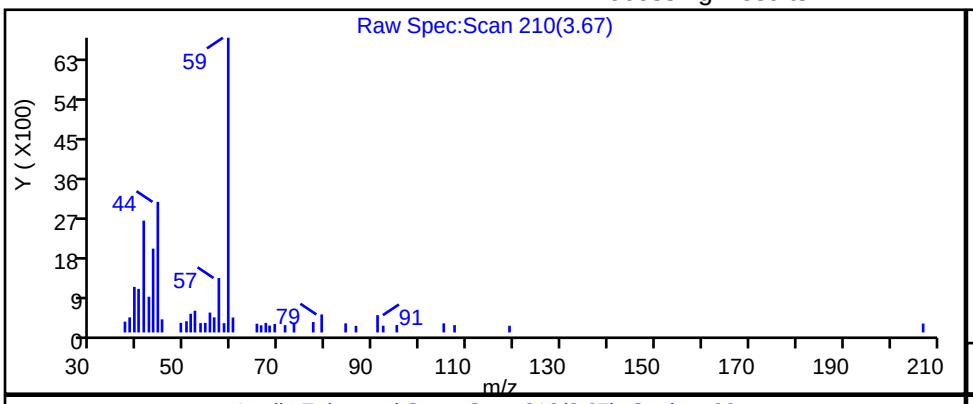
User Disabled Compound Report

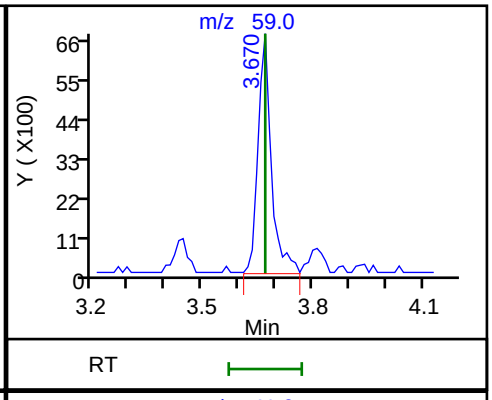
Eurofins Cleveland

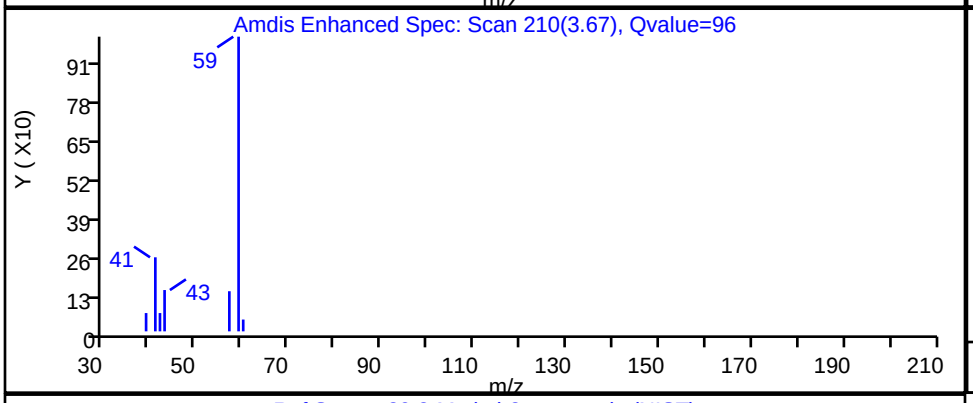
Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Injection Date: 10-Aug-2023 15:15:30 Instrument ID: A3UX10
Lims ID: ic
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

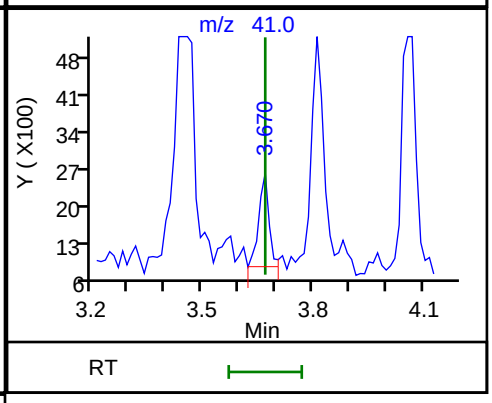
## 29 2-Methyl-2-propanol, CAS: 75-65-0

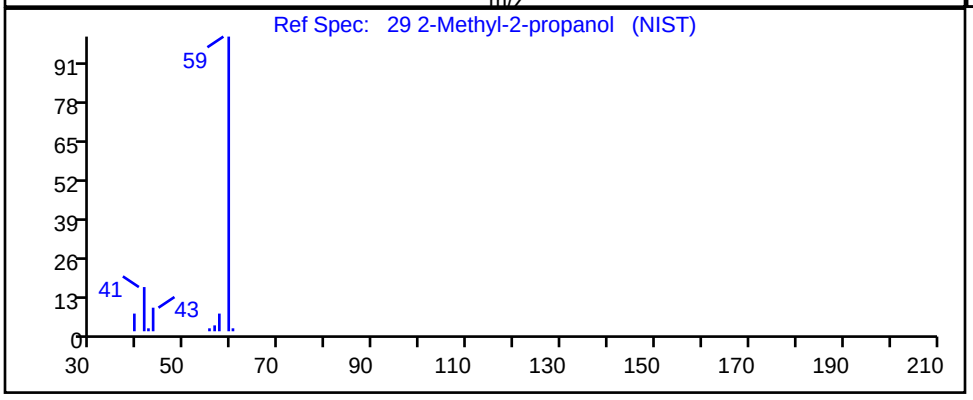
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.67 | 59.00 | 16960 | 7.665872 |
| 3.67 | 41.00 | 3458 | |

Reviewer: HE9L, 11-Aug-2023 13:54:43 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

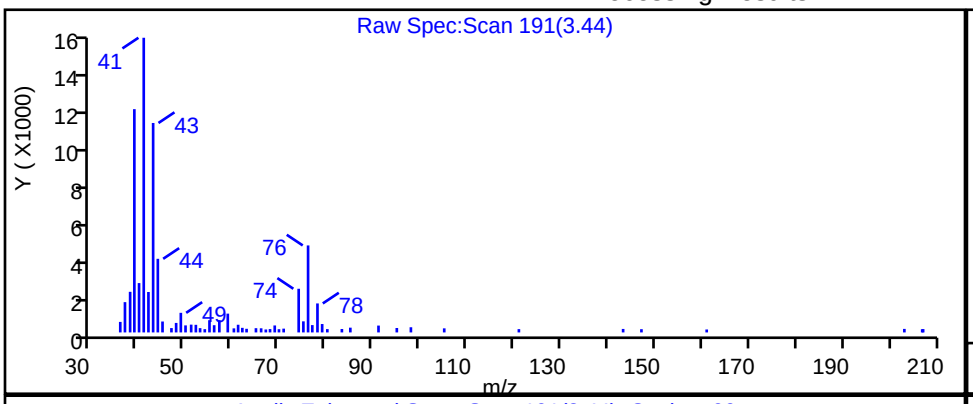
User Disabled Compound Report

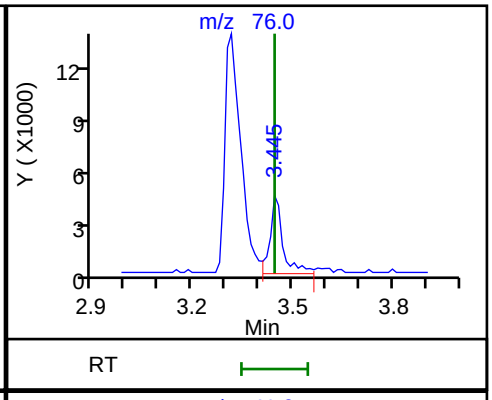
Eurofins Cleveland

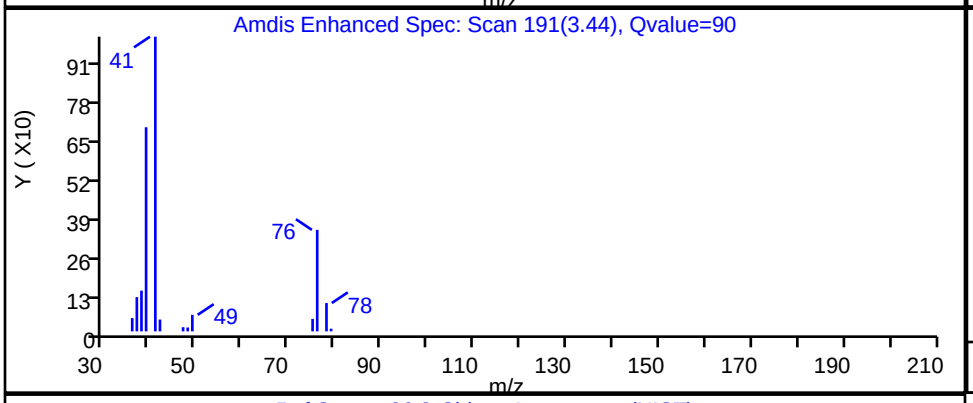
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D | | | | |
| Injection Date: | 10-Aug-2023 15:15:30 | Instrument ID: | A3UX10 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 434006 | ALS Bottle#: | 1 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

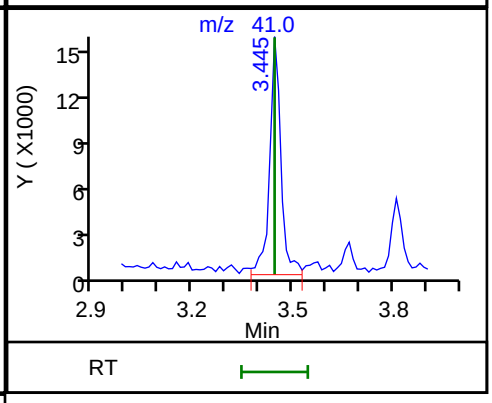
## 26 3-Chloro-1-propene, CAS: 107-05-1

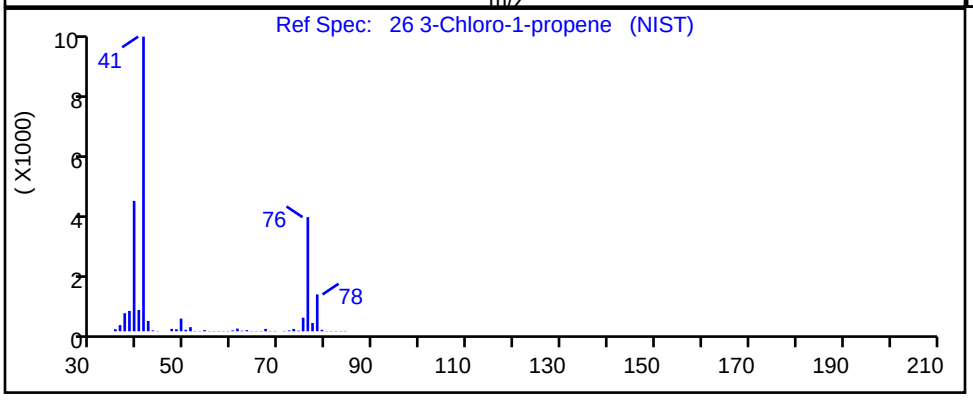
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.44 | 76.00 | 11489 | 0.842230 |
| 3.44 | 41.00 | 34284 | |

Reviewer: HE9L, 11-Aug-2023 13:54:34 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

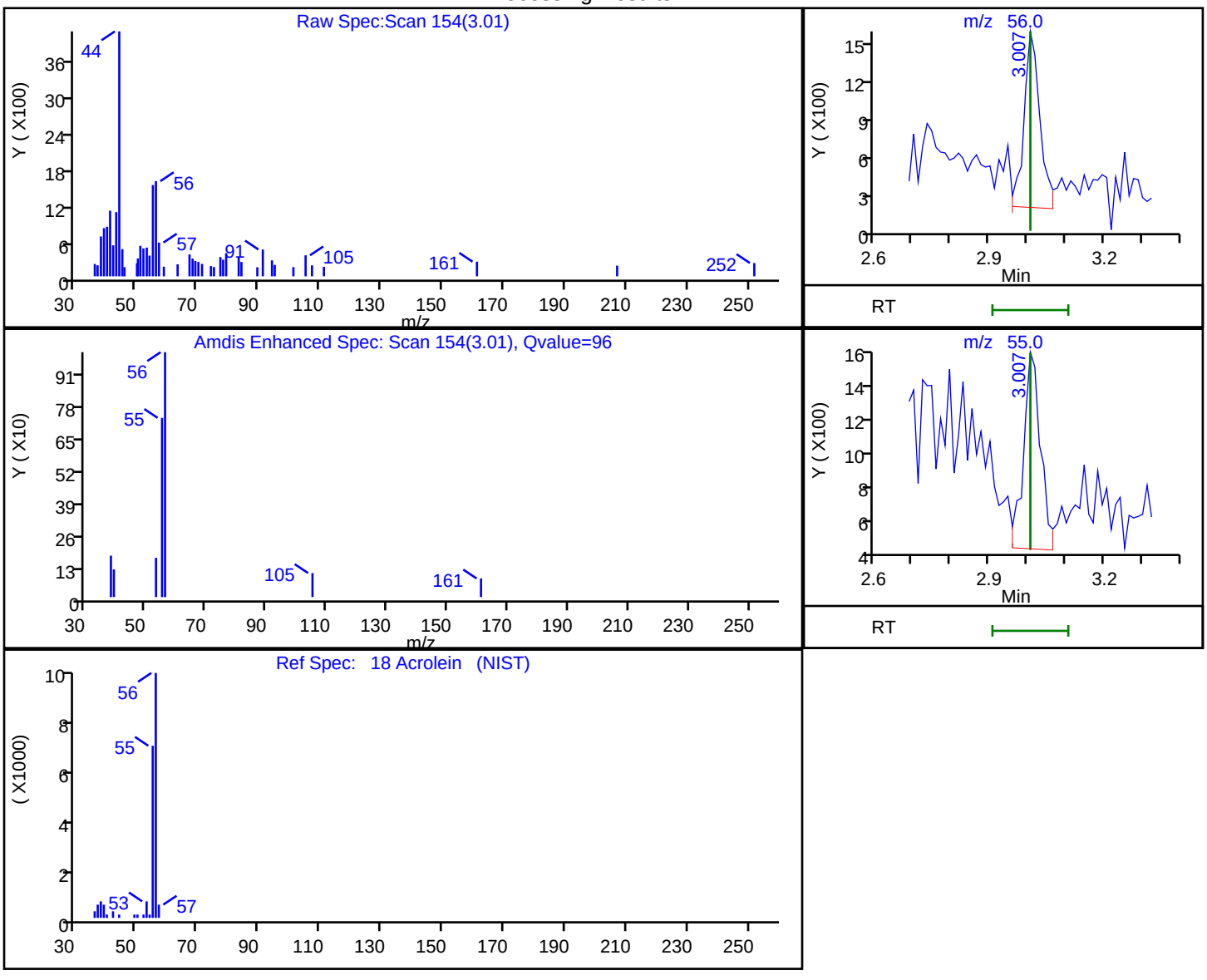
User Disabled Compound Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Injection Date: 10-Aug-2023 15:15:30 Instrument ID: A3UX10
Lims ID: ic
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 18 Acrolein, CAS: 107-02-8

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.01 | 56.00 | 4043 | 4.082132 |
| 3.01 | 55.00 | 3324 | |

Reviewer: HE9L, 11-Aug-2023 13:54:10 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

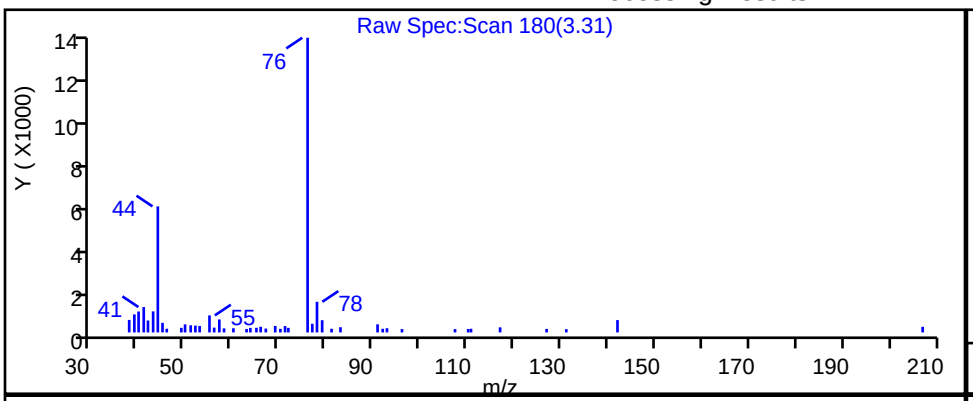
User Disabled Compound Report

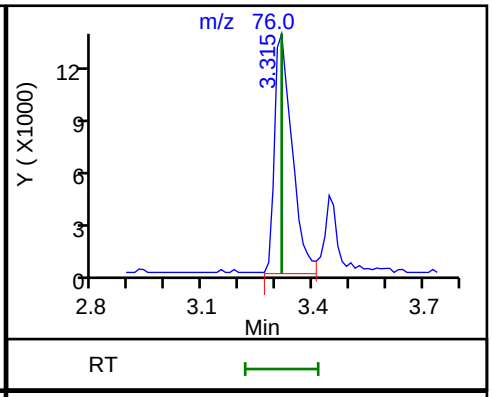
Eurofins Cleveland

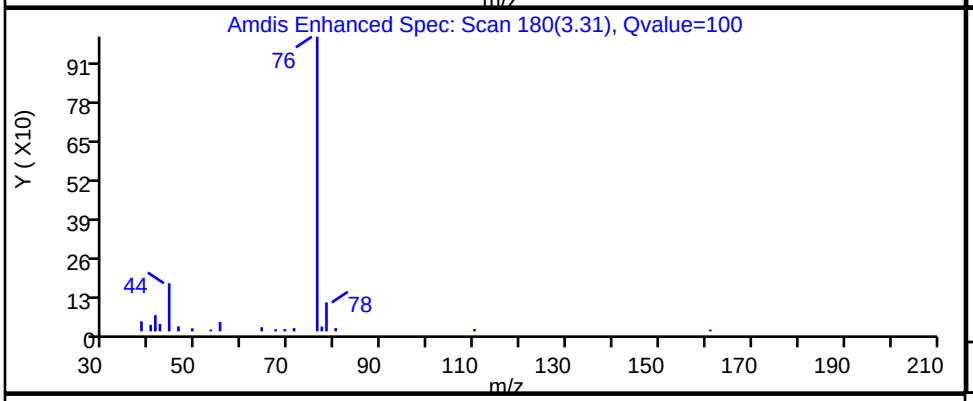
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D | | | | |
| Injection Date: | 10-Aug-2023 15:15:30 | Instrument ID: | A3UX10 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 434006 | ALS Bottle#: | 1 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

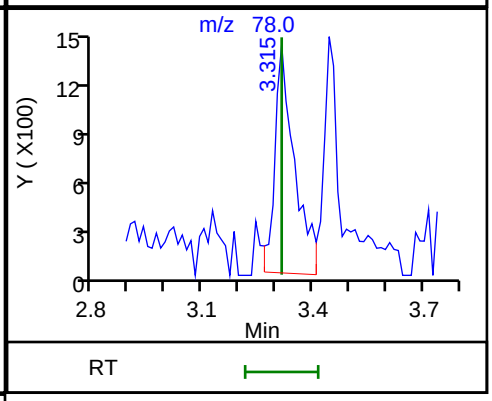
## 24 Carbon disulfide, CAS: 75-15-0

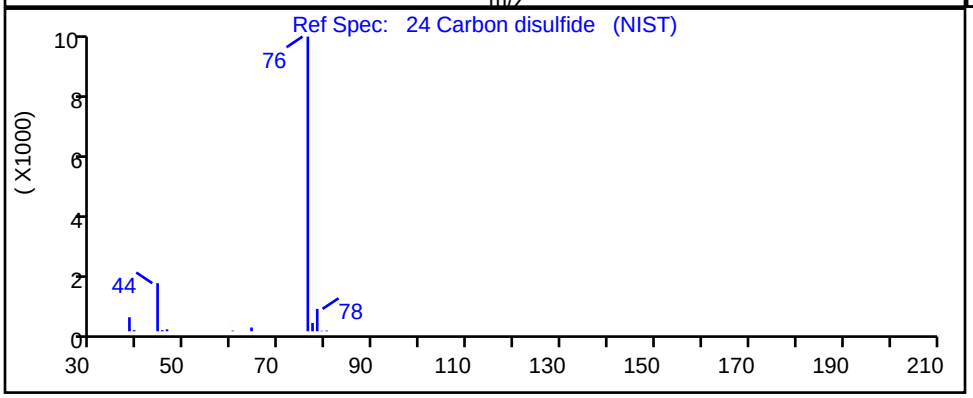
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.31 | 76.00 | 45676 | 0.892636 |
| 3.31 | 78.00 | 5320 | |

Reviewer: HE9L, 11-Aug-2023 13:54:18 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

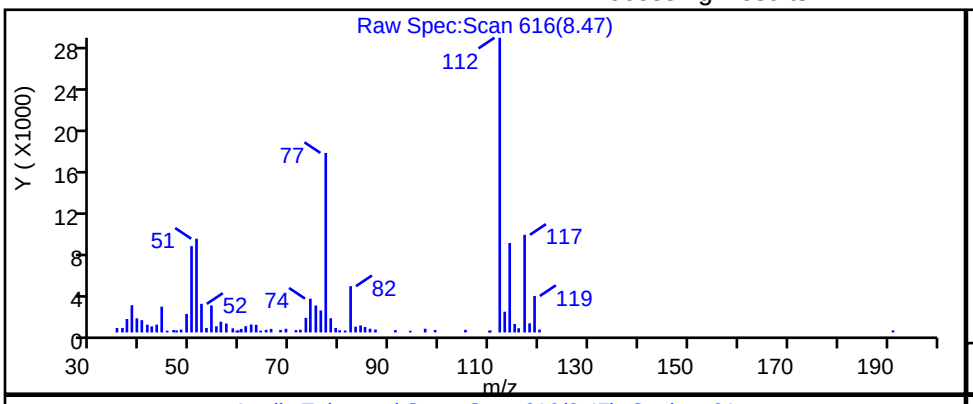
User Disabled Compound Report

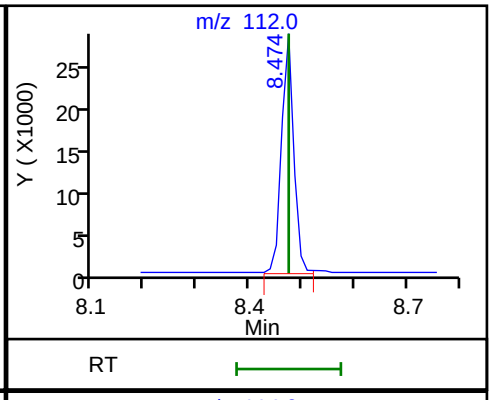
Eurofins Cleveland

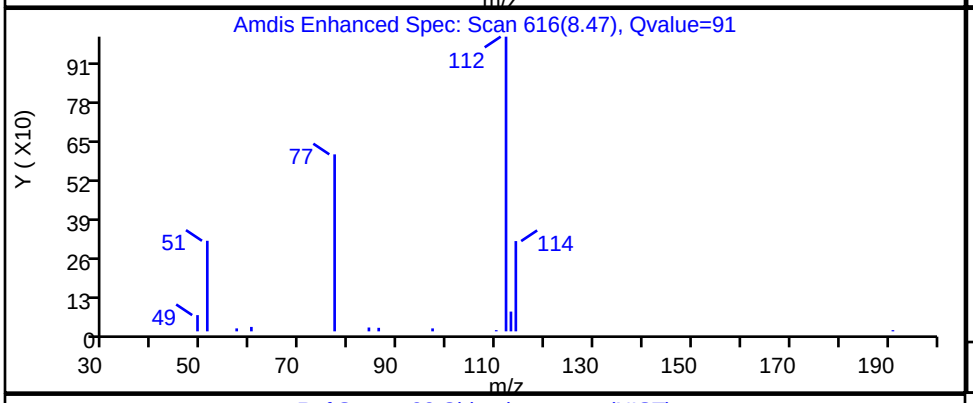
Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Injection Date: 10-Aug-2023 15:15:30 Instrument ID: A3UX10
Lims ID: ic
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

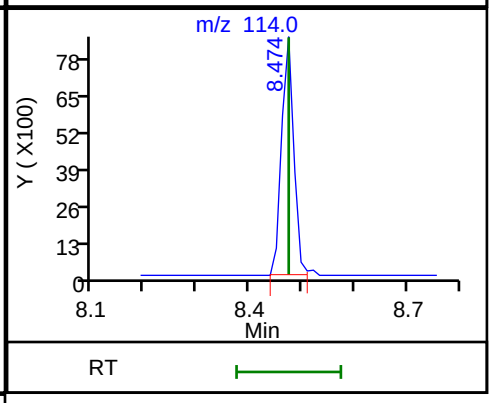
## 82 Chlorobenzene, CAS: 108-90-7

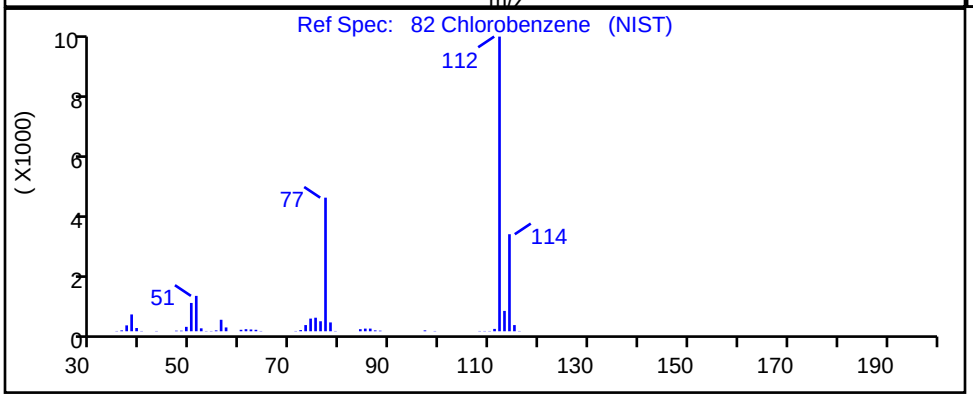
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 8.47 | 112.00 | 45256 | 0.823850 |
| 8.47 | 114.00 | 13834 | |

Reviewer: HE9L, 11-Aug-2023 13:55:19 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

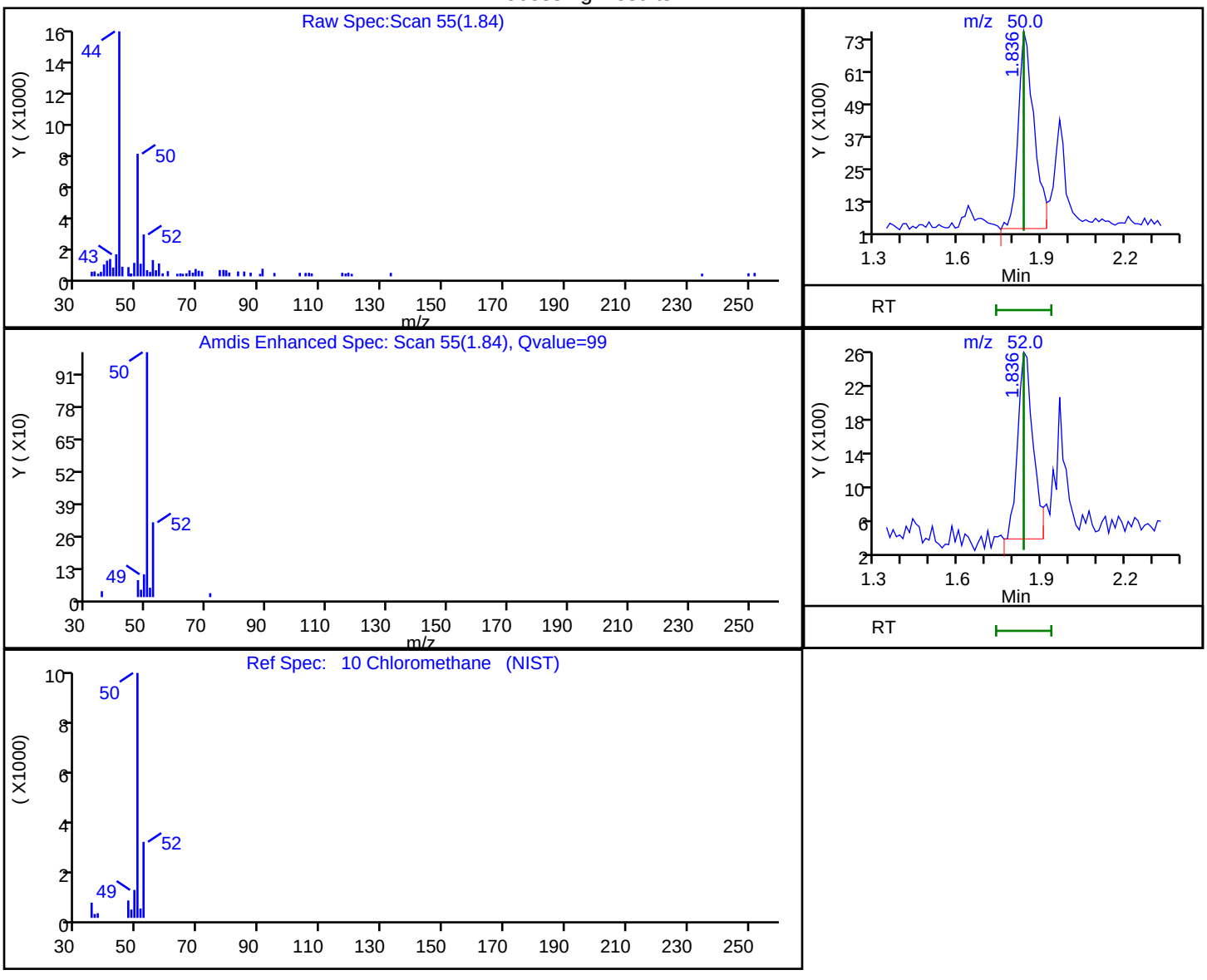
User Disabled Compound Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Injection Date: 10-Aug-2023 15:15:30 Instrument ID: A3UX10
Lims ID: ic
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 10 Chloromethane, CAS: 74-87-3

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 1.84 | 50.00 | 29468 | 0.738605 |
| 1.84 | 52.00 | 8704 | |

Reviewer: HE9L, 11-Aug-2023 13:54:00 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

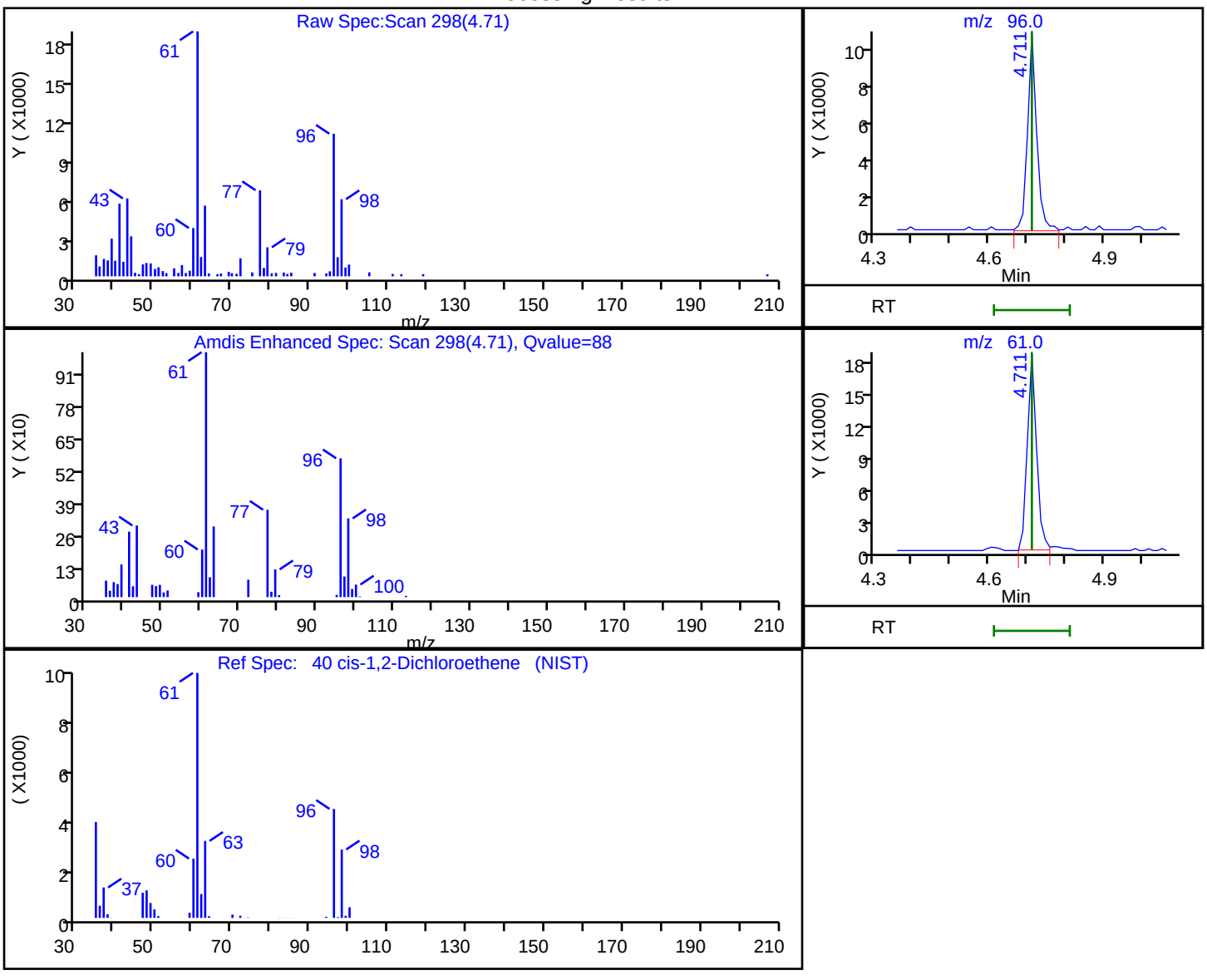
User Disabled Compound Report

Eurofins Cleveland

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D | | | | |
| Injection Date: | 10-Aug-2023 15:15:30 | Instrument ID: | A3UX10 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 434006 | ALS Bottle#: | 1 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 40 cis-1,2-Dichloroethene, CAS: 156-59-2

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 4.71 | 96.00 | 17685 | 0.804347 |
| 4.71 | 61.00 | 31405 | |

Reviewer: HE9L, 11-Aug-2023 13:54:53 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

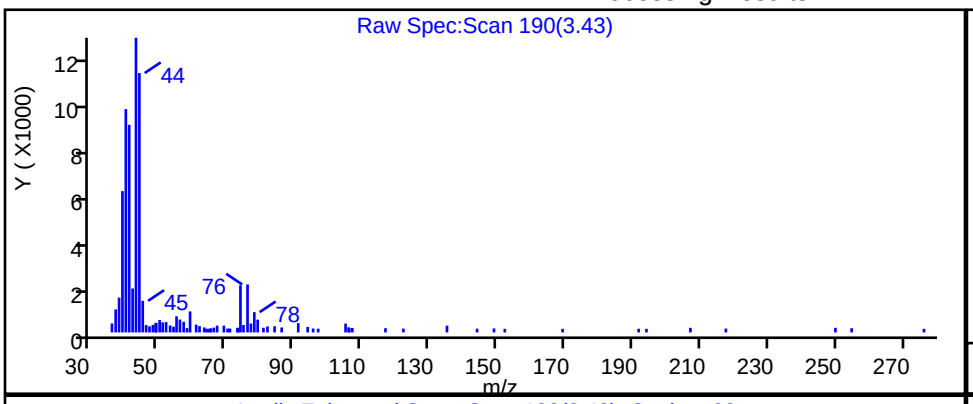
User Disabled Compound Report

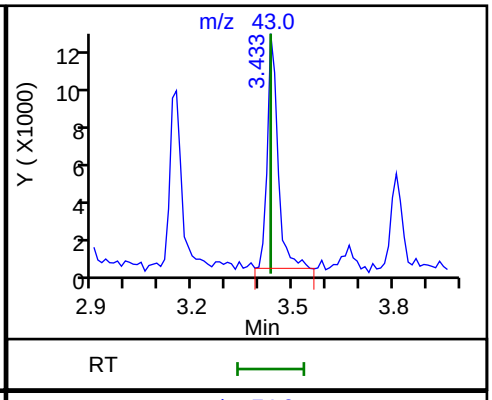
Eurofins Cleveland

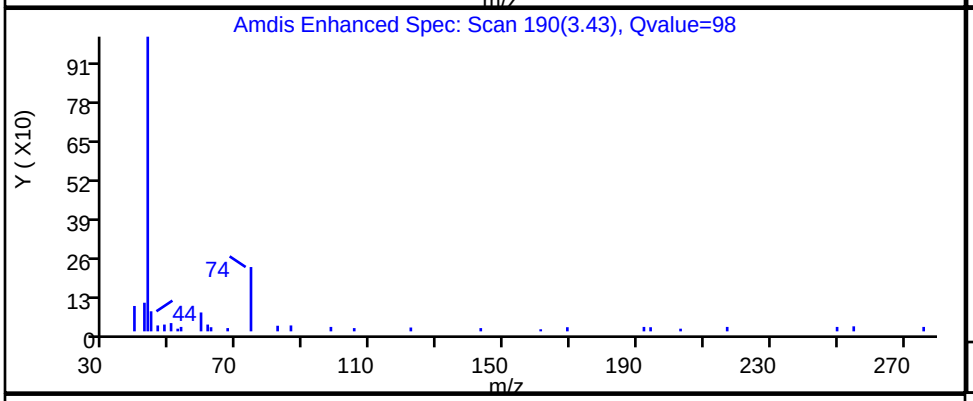
Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Injection Date: 10-Aug-2023 15:15:30 Instrument ID: A3UX10
Lims ID: ic
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

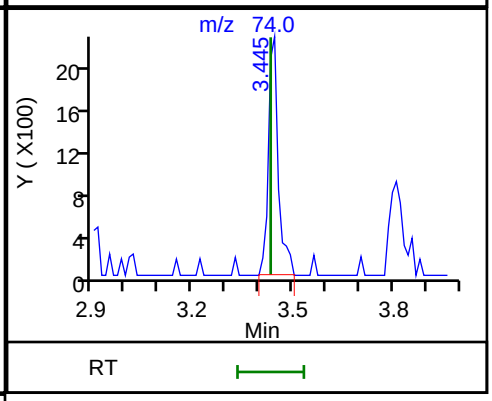
## 27 Methyl acetate, CAS: 79-20-9

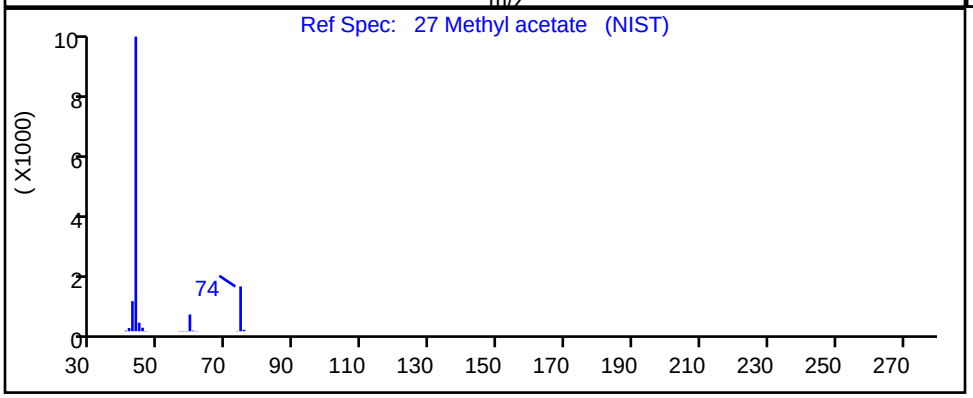
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 3.43 | 43.00 | 26637 | 1.492322 |
| 3.44 | 74.00 | 4641 | |

Reviewer: HE9L, 11-Aug-2023 13:54:30 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

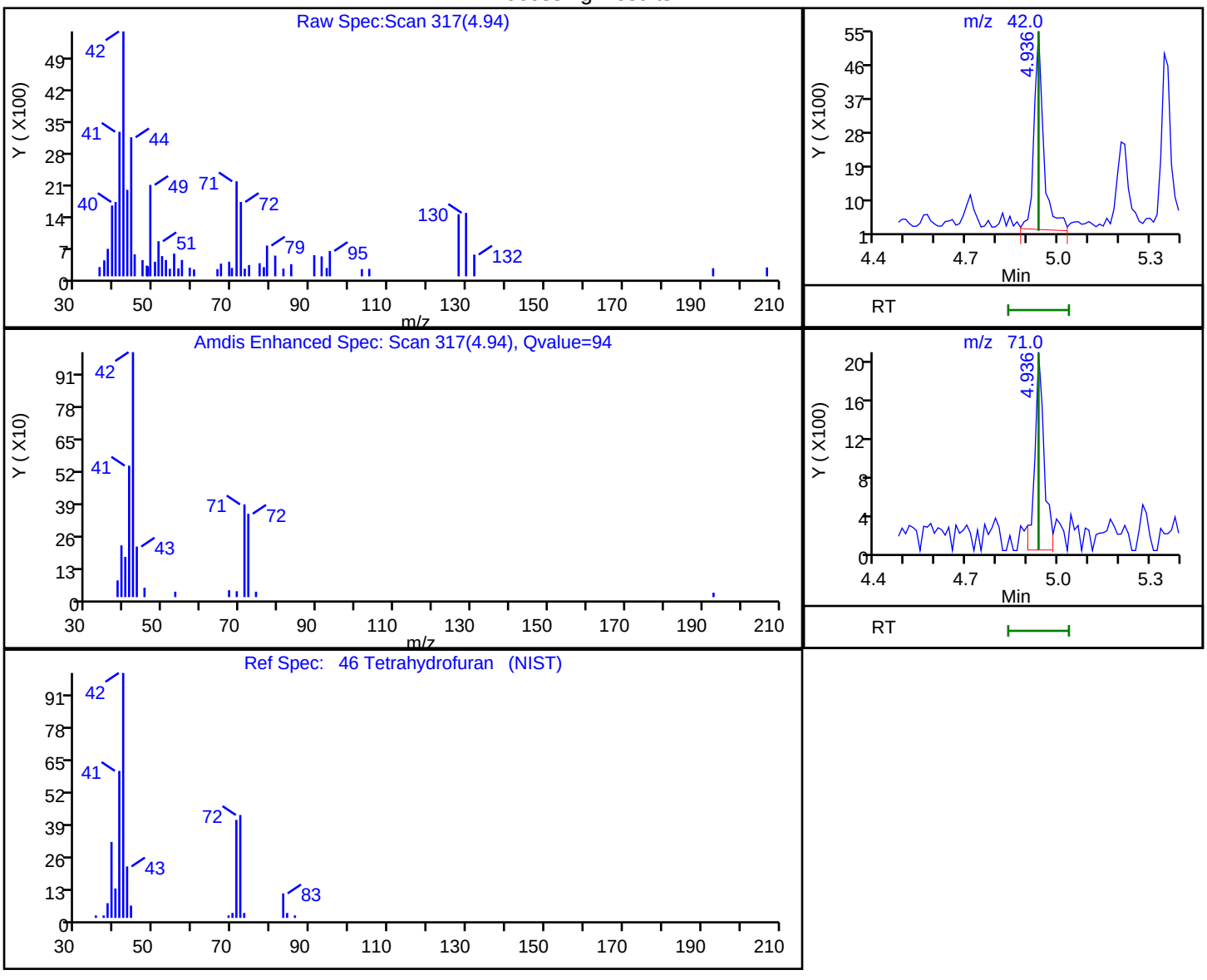
User Disabled Compound Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0600.D
Injection Date: 10-Aug-2023 15:15:30 Instrument ID: A3UX10
Lims ID: ic
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 46 Tetrahydrofuran, CAS: 109-99-9

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 4.94 | 42.00 | 11443 | 1.790670 |
| 4.94 | 71.00 | 4494 | |

Reviewer: HE9L, 11-Aug-2023 13:55:02 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0601.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 10-Aug-2023 15:41:30 ALS Bottle#: 2 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-004
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:05 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 08:09:47

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.714 | 5.717 | -0.003 | 97 | 642201 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.448 | 8.438 | 0.010 | 91 | 493500 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.719 | 10.722 | -0.003 | 97 | 298212 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.134 | 5.137 | -0.003 | 92 | 162289 | 9.34 | 9.24 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.433 | -0.003 | 96 | 240494 | 9.34 | 9.63 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.099 | 7.101 | -0.002 | 94 | 610670 | 9.34 | 9.34 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.572 | 9.574 | -0.002 | 88 | 265625 | 9.34 | 9.25 | |
| 9 Dichlorodifluoromethane | 85 | 1.644 | 1.634 | 0.010 | 98 | 31856 | 1.00 | 1.16 | |
| 10 Chloromethane | 50 | 1.833 | 1.836 | -0.003 | 98 | 41052 | 1.00 | 1.08 | |
| 11 Vinyl chloride | 62 | 1.963 | 1.954 | 0.009 | 56 | 35729 | 1.00 | 1.08 | |
| 12 Butadiene | 54 | 1.963 | 1.966 | -0.003 | 95 | 41227 | 1.00 | 1.09 | |
| 13 Bromomethane | 94 | 2.295 | 2.285 | 0.009 | 94 | 16741 | 1.00 | 1.06 | |
| 14 Chloroethane | 64 | 2.365 | 2.368 | -0.003 | 96 | 20084 | 1.00 | 1.05 | |
| 15 Dichlorofluoromethane | 67 | 2.602 | 2.605 | -0.003 | 95 | 41747 | 1.00 | 1.08 | |
| 16 Trichlorofluoromethane | 101 | 2.602 | 2.605 | -0.003 | 60 | 34444 | 1.00 | 1.09 | |
| 17 Ethyl ether | 59 | 2.874 | 2.877 | -0.003 | 97 | 17979 | 1.00 | 0.9720 | |
| 18 Acrolein | 56 | 3.004 | 3.007 | -0.003 | 96 | 4702 | 5.00 | 4.97 | |
| 19 1,1-Dichloroethene | 96 | 3.111 | 3.102 | 0.009 | 93 | 16637 | 1.00 | 1.04 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.135 | 3.137 | -0.002 | 94 | 13961 | 1.00 | 1.04 | |
| 21 Acetone | 43 | 3.146 | 3.149 | -0.003 | 98 | 25202 | 2.00 | 1.81 | |
| 22 Iodomethane | 142 | 3.241 | 3.244 | -0.003 | 100 | 28301 | 1.00 | 0.9739 | |
| 24 Carbon disulfide | 76 | 3.312 | 3.315 | -0.003 | 99 | 53988 | 1.00 | 1.11 | |
| 27 Methyl acetate | 43 | 3.442 | 3.433 | 0.009 | 100 | 35991 | 2.00 | 2.11 | |
| 26 3-Chloro-1-propene | 76 | 3.442 | 3.445 | -0.003 | 89 | 13567 | 1.00 | 1.04 | |
| 28 Methylene Chloride | 84 | 3.572 | 3.563 | 0.009 | 96 | 29771 | 1.00 | 0.8788 | |
| 29 2-Methyl-2-propanol | 59 | 3.667 | 3.670 | -0.003 | 97 | 23574 | 10.0 | 11.2 | |
| 31 Acrylonitrile | 53 | 3.785 | 3.788 | -0.003 | 97 | 90596 | 10.0 | 10.4 | |
| 32 Methyl tert-butyl ether | 73 | 3.809 | 3.812 | -0.003 | 98 | 55820 | 1.00 | 0.9820 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.821 | 3.812 | 0.009 | 90 | 20552 | 1.00 | 1.04 | |
| 33 Hexane | 86 | 4.069 | 4.060 | 0.009 | 90 | 4781 | 1.00 | 1.15 | |
| 35 Vinyl acetate | 43 | 4.211 | 4.202 | 0.009 | 97 | 33970 | 1.00 | 0.9617 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.211 | 4.214 | -0.003 | 97 | 40734 | 1.00 | 0.9710 | |
| 41 2-Butanone (MEK) | 43 | 4.697 | 4.699 | -0.002 | 94 | 20506 | 2.00 | 2.10 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.708 | 4.711 | -0.003 | 89 | 21099 | 1.00 | 1.01 | |
| 39 2,2-Dichloropropane | 97 | 4.720 | 4.723 | -0.003 | 89 | 6164 | 1.00 | 1.20 | |
| 45 Chlorobromomethane | 128 | 4.921 | 4.912 | 0.009 | 92 | 10395 | 1.00 | 1.04 | |
| 46 Tetrahydrofuran | 42 | 4.933 | 4.936 | -0.003 | 91 | 14122 | 2.00 | 2.31 | |
| 47 Chloroform | 83 | 5.004 | 5.007 | -0.003 | 97 | 38019 | 1.00 | 1.02 | |
| 48 1,1,1-Trichloroethane | 97 | 5.146 | 5.149 | -0.003 | 97 | 33889 | 1.00 | 1.05 | |
| 49 Cyclohexane | 56 | 5.217 | 5.208 | 0.009 | 94 | 44448 | 1.00 | 1.09 | |
| 50 1,1-Dichloropropene | 75 | 5.288 | 5.279 | 0.009 | 90 | 27133 | 1.00 | 0.9767 | |
| 51 Carbon tetrachloride | 117 | 5.288 | 5.279 | 0.009 | 88 | 27246 | 1.00 | 0.99 | |
| 52 Isobutyl alcohol | 41 | 5.359 | 5.350 | 0.009 | 95 | 17606 | 25.0 | 25.3 | |
| 53 Benzene | 78 | 5.454 | 5.456 | -0.002 | 97 | 77002 | 1.00 | 1.00 | |
| 54 1,2-Dichloroethane | 62 | 5.501 | 5.504 | -0.003 | 97 | 35374 | 1.00 | 1.00 | |
| 56 n-Heptane | 100 | 5.691 | 5.693 | -0.002 | 93 | 4940 | 1.00 | 1.25 | |
| 58 Trichloroethene | 130 | 6.022 | 6.024 | -0.002 | 93 | 18925 | 1.00 | 0.9599 | |
| 60 Methylcyclohexane | 83 | 6.235 | 6.226 | 0.009 | 95 | 32110 | 1.00 | 1.10 | |
| 61 1,2-Dichloropropane | 63 | 6.247 | 6.249 | -0.002 | 94 | 22817 | 1.00 | 0.9812 | |
| 64 1,4-Dioxane | 88 | 6.306 | 6.308 | -0.002 | 96 | 3657 | 20.0 | 21.0 | |
| 63 Dibromomethane | 93 | 6.329 | 6.332 | -0.003 | 94 | 12688 | 1.00 | 1.01 | |
| 65 Dichlorobromomethane | 83 | 6.471 | 6.474 | -0.003 | 96 | 29366 | 1.00 | 0.99 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.708 | 6.711 | -0.003 | 93 | 28110 | 2.00 | 1.98 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.862 | 6.853 | 0.009 | 88 | 32660 | 1.00 | 0.9498 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.980 | 6.983 | -0.003 | 98 | 45325 | 2.00 | 2.08 | |
| 70 Toluene | 91 | 7.158 | 7.160 | -0.002 | 97 | 83566 | 1.00 | 1.03 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.371 | 7.361 | 0.010 | 98 | 31166 | 1.00 | 1.00 | |
| 72 Ethyl methacrylate | 69 | 7.394 | 7.397 | -0.003 | 96 | 25504 | 1.00 | 1.04 | |
| 73 1,1,2-Trichloroethane | 97 | 7.548 | 7.551 | -0.003 | 96 | 16123 | 1.00 | 1.02 | |
| 74 Tetrachloroethene | 164 | 7.631 | 7.634 | -0.003 | 93 | 15943 | 1.00 | 1.05 | |
| 75 1,3-Dichloropropane | 76 | 7.702 | 7.693 | 0.009 | 96 | 29332 | 1.00 | 1.00 | |
| 76 2-Hexanone | 43 | 7.738 | 7.740 | -0.002 | 98 | 30403 | 2.00 | 2.06 | |
| 78 Chlorodibromomethane | 129 | 7.903 | 7.894 | 0.009 | 91 | 18605 | 1.00 | 0.9751 | |
| 80 Ethylene Dibromide | 107 | 8.022 | 8.012 | 0.010 | 99 | 16159 | 1.00 | 0.9726 | |
| 82 Chlorobenzene | 112 | 8.471 | 8.474 | -0.003 | 92 | 54497 | 1.00 | 1.06 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.554 | 8.545 | 0.009 | 45 | 18099 | 1.00 | 0.9353 | |
| 84 Ethylbenzene | 106 | 8.554 | 8.557 | -0.003 | 99 | 28824 | 1.00 | 1.00 | |
| 85 m-Xylene & p-Xylene | 106 | 8.684 | 8.675 | 0.009 | 98 | 35151 | 1.00 | 0.9769 | |
| 86 o-Xylene | 106 | 9.051 | 9.054 | -0.003 | 97 | 36204 | 1.00 | 1.01 | |
| 87 Styrene | 104 | 9.063 | 9.065 | -0.002 | 93 | 59908 | 1.00 | 0.9801 | |
| 88 Bromoform | 173 | 9.252 | 9.255 | -0.003 | 92 | 12431 | 1.00 | 0.9208 | |
| 89 Isopropylbenzene | 105 | 9.406 | 9.397 | 0.009 | 98 | 89086 | 1.00 | 0.9859 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.702 | 9.693 | 0.010 | 96 | 22075 | 1.00 | 1.02 | |
| 93 Bromobenzene | 156 | 9.726 | 9.716 | 0.010 | 94 | 24699 | 1.00 | 1.01 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.737 | 9.740 | -0.003 | 76 | 8958 | 1.00 | 1.02 | |
| 94 1,2,3-Trichloropropane | 110 | 9.761 | 9.764 | -0.003 | 89 | 6467 | 1.00 | 0.9822 | |
| 96 N-Propylbenzene | 120 | 9.808 | 9.811 | -0.003 | 100 | 23999 | 1.00 | 0.9723 | |
| 97 2-Chlorotoluene | 126 | 9.903 | 9.906 | -0.003 | 94 | 21791 | 1.00 | 0.9824 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.986 | 9.988 | -0.002 | 94 | 79999 | 1.00 | 1.01 | |
| 99 4-Chlorotoluene | 126 | 10.021 | 10.024 | -0.003 | 99 | 21624 | 1.00 | 0.9261 | |
| 100 tert-Butylbenzene | 119 | 10.293 | 10.296 | -0.003 | 93 | 64762 | 1.00 | 1.02 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.353 | 10.355 | -0.002 | 99 | 81941 | 1.00 | 0.9830 | |
| 103 sec-Butylbenzene | 105 | 10.518 | 10.521 | -0.003 | 95 | 95687 | 1.00 | 1.02 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.637 | 10.639 | -0.002 | 95 | 45143 | 1.00 | 1.00 | |
| 105 4-Isopropyltoluene | 119 | 10.672 | 10.663 | 0.009 | 96 | 78659 | 1.00 | 0.9860 | |
| 106 1,4-Dichlorobenzene | 146 | 10.743 | 10.746 | -0.003 | 90 | 43696 | 1.00 | 0.9492 | |
| 109 n-Butylbenzene | 91 | 11.074 | 11.077 | -0.003 | 98 | 74806 | 1.00 | 1.00 | |
| 110 1,2-Dichlorobenzene | 146 | 11.098 | 11.101 | -0.003 | 94 | 42310 | 1.00 | 0.9874 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.891 | 11.882 | 0.009 | 82 | 4819 | 1.00 | 1.07 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.707 | 12.710 | -0.003 | 94 | 29434 | 1.00 | 0.9550 | |
| 114 Hexachlorobutadiene | 225 | 12.849 | 12.852 | -0.003 | 96 | 13024 | 1.00 | 1.01 | |
| 115 Naphthalene | 128 | 12.980 | 12.982 | -0.002 | 99 | 57698 | 1.00 | 0.9837 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.228 | 13.231 | -0.002 | 95 | 25387 | 1.00 | 0.9791 | |
| S 156 Total BTEX | 1 | | | | 0 | | 5.00 | 5.02 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 4.00 | 3.91 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 2.04 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 1.95 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 2.00 | 1.98 | |

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: | 0.80 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 0.80 | Units: uL | |
| VMRGAS_00488 | Amount Added: | 0.80 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

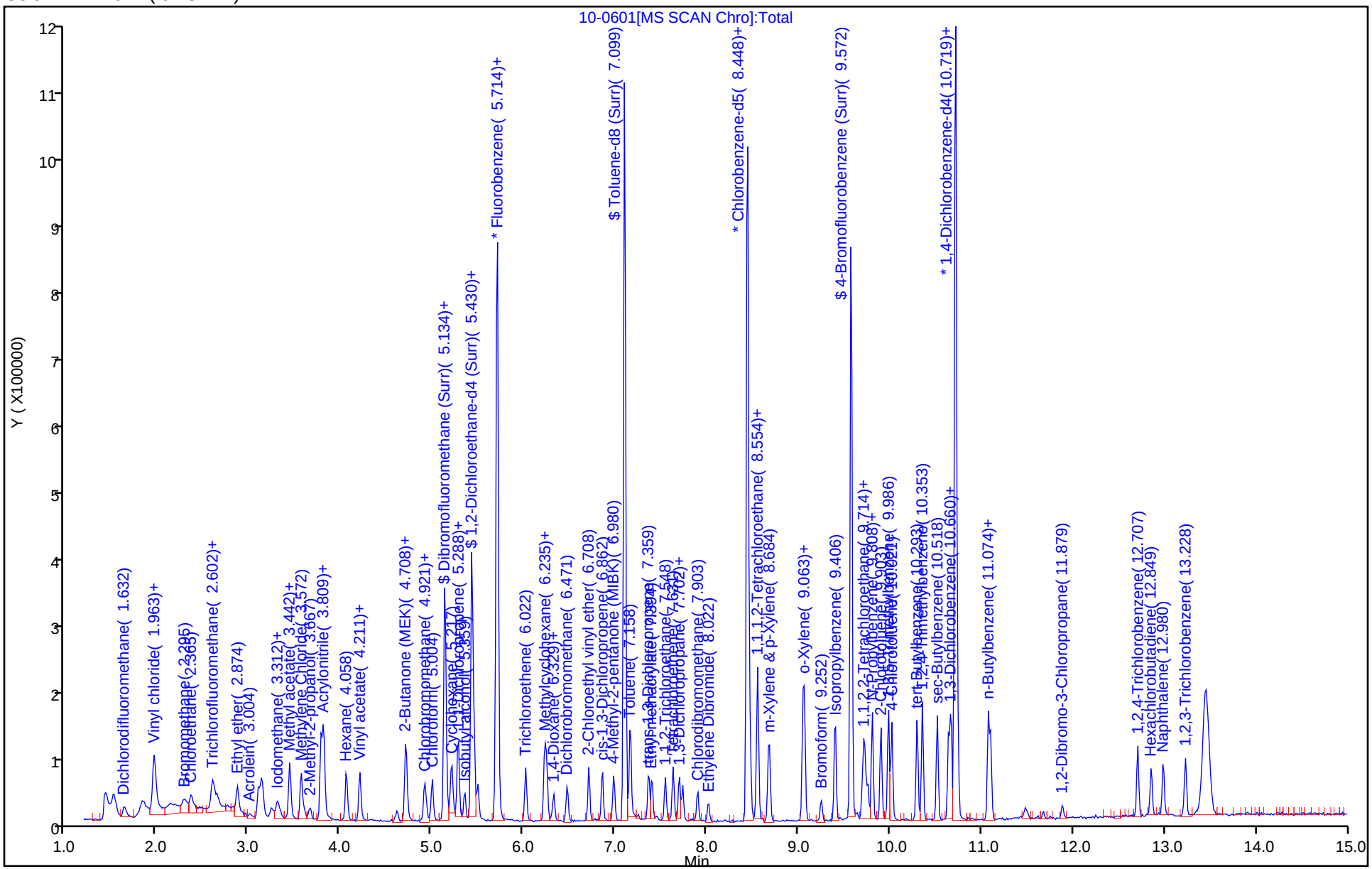
Report Date: 11-Aug-2023 13:58:06 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0601.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 15:41:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0602.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 10-Aug-2023 16:06:30 ALS Bottle#: 3 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-005
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:09 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 08:11:01

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.714 | 5.717 | -0.003 | 97 | 641914 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.447 | 8.438 | 0.009 | 90 | 501808 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.719 | 10.722 | -0.003 | 96 | 297825 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.134 | 5.137 | -0.003 | 93 | 165169 | 9.34 | 9.41 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.433 | -0.003 | 97 | 239134 | 9.34 | 9.58 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.098 | 7.101 | -0.003 | 95 | 616810 | 9.34 | 9.28 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.571 | 9.574 | -0.003 | 87 | 267364 | 9.34 | 9.16 | |
| 9 Dichlorodifluoromethane | 85 | 1.631 | 1.634 | -0.003 | 99 | 70692 | 2.50 | 2.57 | |
| 10 Chloromethane | 50 | 1.833 | 1.836 | -0.003 | 99 | 97423 | 2.50 | 2.56 | |
| 11 Vinyl chloride | 62 | 1.951 | 1.954 | -0.003 | 77 | 79735 | 2.50 | 2.41 | |
| 12 Butadiene | 54 | 1.963 | 1.966 | -0.003 | 89 | 91053 | 2.50 | 2.41 | |
| 13 Bromomethane | 94 | 2.282 | 2.285 | -0.003 | 93 | 41881 | 2.50 | 2.65 | |
| 14 Chloroethane | 64 | 2.365 | 2.368 | -0.003 | 98 | 47048 | 2.50 | 2.47 | |
| 15 Dichlorofluoromethane | 67 | 2.602 | 2.605 | -0.003 | 99 | 94539 | 2.50 | 2.45 | |
| 16 Trichlorofluoromethane | 101 | 2.602 | 2.605 | -0.003 | 97 | 77339 | 2.50 | 2.46 | |
| 17 Ethyl ether | 59 | 2.874 | 2.877 | -0.003 | 97 | 47812 | 2.50 | 2.59 | |
| 18 Acrolein | 56 | 3.004 | 3.007 | -0.003 | 98 | 13469 | 12.5 | 14.2 | |
| 19 1,1-Dichloroethene | 96 | 3.099 | 3.102 | -0.003 | 93 | 38033 | 2.50 | 2.37 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.134 | 3.137 | -0.003 | 95 | 28874 | 2.50 | 2.16 | |
| 21 Acetone | 43 | 3.146 | 3.149 | -0.003 | 98 | 42428 | 5.00 | 4.73 | |
| 22 Iodomethane | 142 | 3.241 | 3.244 | -0.003 | 98 | 70231 | 2.50 | 2.42 | |
| 24 Carbon disulfide | 76 | 3.312 | 3.315 | -0.003 | 99 | 118478 | 2.50 | 2.43 | |
| 27 Methyl acetate | 43 | 3.442 | 3.433 | 0.009 | 100 | 86731 | 5.00 | 5.09 | |
| 26 3-Chloro-1-propene | 76 | 3.442 | 3.445 | -0.003 | 87 | 30138 | 2.50 | 2.31 | |
| 28 Methylene Chloride | 84 | 3.572 | 3.563 | 0.009 | 94 | 60880 | 2.50 | 2.52 | |
| 29 2-Methyl-2-propanol | 59 | 3.667 | 3.670 | -0.003 | 97 | 53636 | 25.0 | 25.4 | |
| 31 Acrylonitrile | 53 | 3.785 | 3.788 | -0.003 | 97 | 210359 | 25.0 | 24.1 | |
| 32 Methyl tert-butyl ether | 73 | 3.809 | 3.812 | -0.003 | 98 | 140005 | 2.50 | 2.46 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.820 | 3.812 | 0.008 | 92 | 46705 | 2.50 | 2.36 | |
| 33 Hexane | 86 | 4.057 | 4.060 | -0.003 | 94 | 9360 | 2.50 | 2.25 | |
| 35 Vinyl acetate | 43 | 4.211 | 4.202 | 0.009 | 97 | 87905 | 2.50 | 2.49 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.211 | 4.214 | -0.003 | 98 | 101679 | 2.50 | 2.42 | |
| 41 2-Butanone (MEK) | 43 | 4.696 | 4.699 | -0.003 | 99 | 48431 | 5.00 | 4.96 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.708 | 4.711 | -0.003 | 89 | 56139 | 2.50 | 2.68 | |
| 39 2,2-Dichloropropane | 97 | 4.720 | 4.723 | -0.003 | 93 | 13490 | 2.50 | 2.63 | |
| 45 Chlorobromomethane | 128 | 4.921 | 4.912 | 0.009 | 91 | 23391 | 2.50 | 2.34 | |
| 46 Tetrahydrofuran | 42 | 4.933 | 4.936 | -0.003 | 95 | 30975 | 5.00 | 5.08 | |
| 47 Chloroform | 83 | 5.004 | 5.007 | -0.003 | 98 | 93262 | 2.50 | 2.51 | |
| 48 1,1,1-Trichloroethane | 97 | 5.158 | 5.149 | 0.009 | 97 | 76132 | 2.50 | 2.37 | |
| 49 Cyclohexane | 56 | 5.217 | 5.208 | 0.009 | 93 | 87813 | 2.50 | 2.14 | |
| 50 1,1-Dichloropropene | 75 | 5.288 | 5.279 | 0.009 | 89 | 65109 | 2.50 | 2.34 | |
| 51 Carbon tetrachloride | 117 | 5.288 | 5.279 | 0.009 | 85 | 61081 | 2.50 | 2.23 | |
| 52 Isobutyl alcohol | 41 | 5.359 | 5.350 | 0.009 | 95 | 40794 | 62.5 | 57.6 | |
| 53 Benzene | 78 | 5.453 | 5.456 | -0.003 | 96 | 188503 | 2.50 | 2.45 | |
| 54 1,2-Dichloroethane | 62 | 5.501 | 5.504 | -0.003 | 96 | 85450 | 2.50 | 2.41 | |
| 56 n-Heptane | 100 | 5.690 | 5.693 | -0.003 | 96 | 7409 | 2.50 | 1.87 | |
| 58 Trichloroethene | 130 | 6.021 | 6.024 | -0.003 | 94 | 46004 | 2.50 | 2.33 | |
| 60 Methylcyclohexane | 83 | 6.234 | 6.226 | 0.008 | 96 | 62569 | 2.50 | 2.15 | |
| 61 1,2-Dichloropropane | 63 | 6.246 | 6.249 | -0.003 | 91 | 57295 | 2.50 | 2.46 | |
| 64 1,4-Dioxane | 88 | 6.305 | 6.308 | -0.003 | 91 | 7449 | 50.0 | 42.8 | |
| 63 Dibromomethane | 93 | 6.329 | 6.332 | -0.003 | 95 | 30167 | 2.50 | 2.40 | |
| 65 Dichlorobromomethane | 83 | 6.471 | 6.474 | -0.003 | 97 | 71182 | 2.50 | 2.41 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.708 | 6.711 | -0.003 | 92 | 68205 | 5.00 | 4.80 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.861 | 6.853 | 0.008 | 89 | 83660 | 2.50 | 2.43 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.980 | 6.983 | -0.003 | 97 | 104594 | 5.00 | 4.81 | |
| 70 Toluene | 91 | 7.169 | 7.160 | 0.009 | 97 | 194919 | 2.50 | 2.37 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.370 | 7.361 | 0.009 | 99 | 73927 | 2.50 | 2.33 | |
| 72 Ethyl methacrylate | 69 | 7.406 | 7.397 | 0.009 | 95 | 57851 | 2.50 | 2.32 | |
| 73 1,1,2-Trichloroethane | 97 | 7.548 | 7.551 | -0.003 | 96 | 39078 | 2.50 | 2.42 | |
| 74 Tetrachloroethene | 164 | 7.631 | 7.634 | -0.003 | 94 | 35247 | 2.50 | 2.29 | |
| 75 1,3-Dichloropropane | 76 | 7.702 | 7.693 | 0.009 | 98 | 71595 | 2.50 | 2.40 | |
| 76 2-Hexanone | 43 | 7.737 | 7.740 | -0.003 | 97 | 71256 | 5.00 | 4.75 | |
| 78 Chlorodibromomethane | 129 | 7.903 | 7.894 | 0.009 | 91 | 44315 | 2.50 | 2.28 | |
| 80 Ethylene Dibromide | 107 | 8.021 | 8.012 | 0.009 | 98 | 41005 | 2.50 | 2.43 | |
| 82 Chlorobenzene | 112 | 8.471 | 8.474 | -0.003 | 91 | 133941 | 2.50 | 2.55 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.554 | 8.545 | 0.009 | 92 | 48044 | 2.50 | 2.44 | |
| 84 Ethylbenzene | 106 | 8.554 | 8.557 | -0.003 | 99 | 69151 | 2.50 | 2.37 | |
| 85 m-Xylene & p-Xylene | 106 | 8.684 | 8.675 | 0.009 | 98 | 85757 | 2.50 | 2.34 | |
| 86 o-Xylene | 106 | 9.051 | 9.054 | -0.003 | 98 | 89055 | 2.50 | 2.43 | |
| 87 Styrene | 104 | 9.062 | 9.065 | -0.003 | 92 | 150055 | 2.50 | 2.41 | |
| 88 Bromoform | 173 | 9.252 | 9.255 | -0.003 | 95 | 31165 | 2.50 | 2.27 | |
| 89 Isopropylbenzene | 105 | 9.406 | 9.397 | 0.009 | 97 | 221217 | 2.50 | 2.41 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.701 | 9.693 | 0.009 | 97 | 53736 | 2.50 | 2.48 | |
| 93 Bromobenzene | 156 | 9.725 | 9.716 | 0.009 | 95 | 58680 | 2.50 | 2.39 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.737 | 9.740 | -0.003 | 75 | 20802 | 2.50 | 2.38 | |
| 94 1,2,3-Trichloropropane | 110 | 9.761 | 9.764 | -0.003 | 89 | 15932 | 2.50 | 2.42 | |
| 96 N-Propylbenzene | 120 | 9.808 | 9.811 | -0.003 | 99 | 59347 | 2.50 | 2.41 | |
| 97 2-Chlorotoluene | 126 | 9.903 | 9.906 | -0.003 | 95 | 53961 | 2.50 | 2.44 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.985 | 9.988 | -0.003 | 93 | 191059 | 2.50 | 2.41 | |
| 99 4-Chlorotoluene | 126 | 10.021 | 10.024 | -0.003 | 99 | 54177 | 2.50 | 2.32 | |
| 100 tert-Butylbenzene | 119 | 10.293 | 10.296 | -0.003 | 92 | 149330 | 2.50 | 2.34 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.352 | 10.355 | -0.003 | 98 | 202818 | 2.50 | 2.44 | |
| 103 sec-Butylbenzene | 105 | 10.518 | 10.521 | -0.003 | 95 | 220049 | 2.50 | 2.35 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.636 | 10.639 | -0.003 | 96 | 109650 | 2.50 | 2.44 | |
| 105 4-Isopropyltoluene | 119 | 10.672 | 10.663 | 0.009 | 96 | 189781 | 2.50 | 2.38 | |
| 106 1,4-Dichlorobenzene | 146 | 10.743 | 10.746 | -0.003 | 95 | 113090 | 2.50 | 2.46 | |
| 109 n-Butylbenzene | 91 | 11.074 | 11.077 | -0.003 | 98 | 173845 | 2.50 | 2.33 | |
| 110 1,2-Dichlorobenzene | 146 | 11.098 | 11.101 | -0.003 | 93 | 103448 | 2.50 | 2.42 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.879 | 11.882 | -0.003 | 77 | 10178 | 2.50 | 2.27 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.707 | 12.710 | -0.003 | 93 | 73058 | 2.50 | 2.37 | |
| 114 Hexachlorobutadiene | 225 | 12.849 | 12.852 | -0.003 | 97 | 29001 | 2.50 | 2.26 | |
| 115 Naphthalene | 128 | 12.979 | 12.982 | -0.003 | 99 | 141808 | 2.50 | 2.42 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.228 | 13.231 | -0.002 | 96 | 64359 | 2.50 | 2.49 | |
| S 156 Total BTEX | 1 | | | | 0 | | 12.5 | 12.0 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 10.0 | 9.47 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 5.03 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 4.77 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 5.00 | 4.78 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: | 2.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 2.00 | Units: uL | |
| VMRGAS_00488 | Amount Added: | 2.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

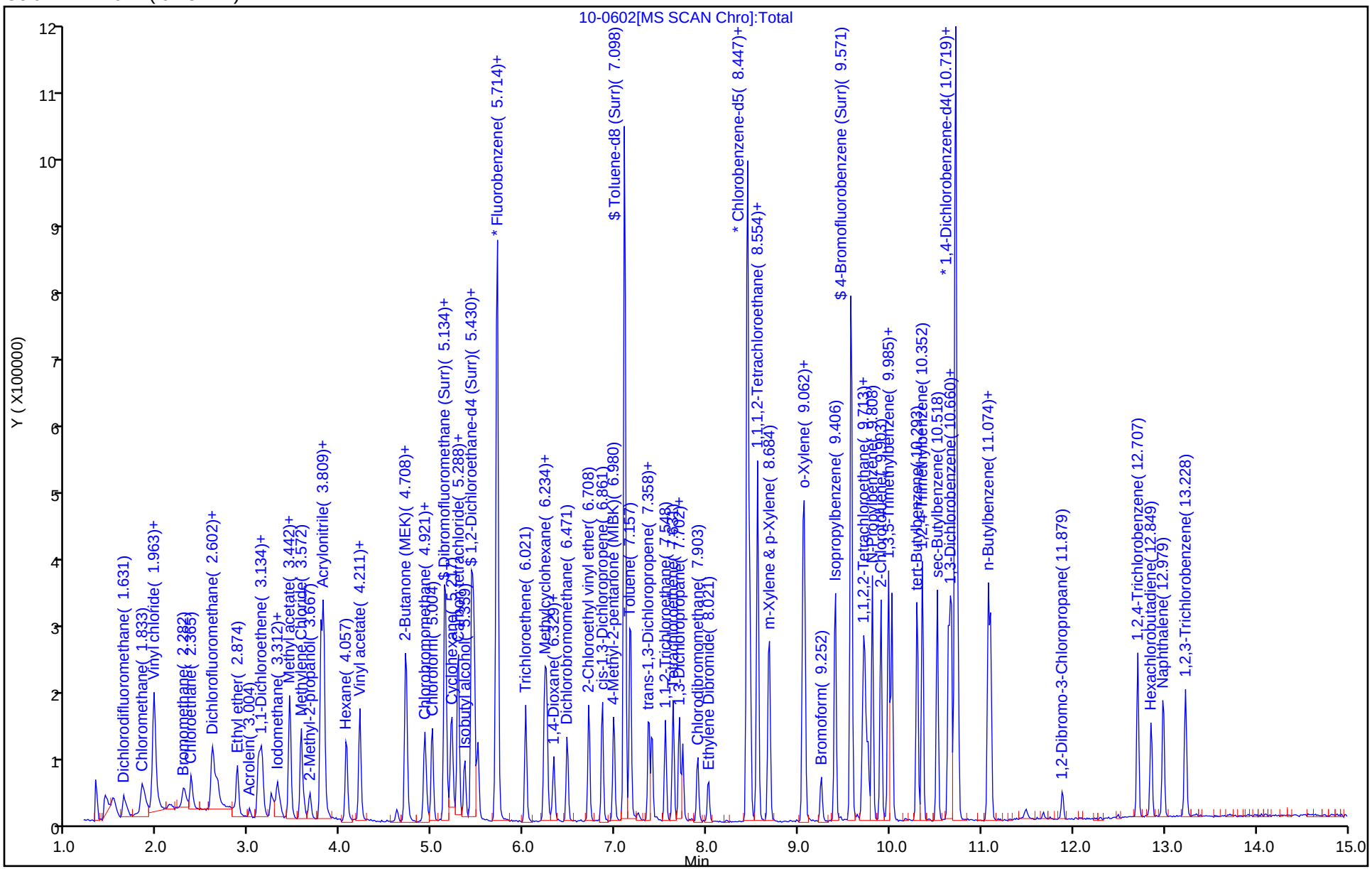
Report Date: 11-Aug-2023 13:58:09 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0602.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 16:06:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0603.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 10-Aug-2023 16:31:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-006
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:12 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 08:11:21

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.715 | 5.717 | -0.002 | 98 | 639577 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.449 | 8.438 | 0.011 | 90 | 495642 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.721 | 10.722 | -0.001 | 96 | 292418 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.136 | 5.137 | -0.001 | 92 | 163722 | 9.34 | 9.36 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.431 | 5.433 | -0.002 | 96 | 235620 | 9.34 | 9.48 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.100 | 7.101 | -0.001 | 95 | 611474 | 9.34 | 9.31 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.573 | 9.574 | -0.001 | 86 | 269833 | 9.34 | 9.36 | |
| 9 Dichlorodifluoromethane | 85 | 1.633 | 1.634 | -0.001 | 99 | 160324 | 6.25 | 5.85 | |
| 10 Chloromethane | 50 | 1.834 | 1.836 | -0.002 | 99 | 239472 | 6.25 | 6.31 | |
| 11 Vinyl chloride | 62 | 1.953 | 1.954 | -0.001 | 98 | 192972 | 6.25 | 5.84 | |
| 12 Butadiene | 54 | 1.964 | 1.966 | -0.002 | 88 | 221619 | 6.25 | 5.88 | |
| 13 Bromomethane | 94 | 2.296 | 2.285 | 0.011 | 92 | 99902 | 6.25 | 6.34 | |
| 14 Chloroethane | 64 | 2.379 | 2.368 | 0.011 | 98 | 111966 | 6.25 | 5.90 | |
| 15 Dichlorofluoromethane | 67 | 2.603 | 2.605 | -0.002 | 98 | 231503 | 6.25 | 6.03 | |
| 16 Trichlorofluoromethane | 101 | 2.603 | 2.605 | -0.002 | 98 | 195573 | 6.25 | 6.23 | |
| 17 Ethyl ether | 59 | 2.876 | 2.877 | -0.001 | 99 | 110923 | 6.25 | 6.02 | |
| 18 Acrolein | 56 | 3.006 | 3.007 | -0.001 | 100 | 29623 | 31.3 | 31.5 | |
| 19 1,1-Dichloroethene | 96 | 3.100 | 3.102 | -0.002 | 95 | 94904 | 6.25 | 5.94 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.136 | 3.137 | -0.001 | 96 | 78128 | 6.25 | 5.86 | |
| 21 Acetone | 43 | 3.148 | 3.149 | -0.001 | 99 | 86423 | 12.5 | 12.2 | |
| 22 Iodomethane | 142 | 3.242 | 3.244 | -0.002 | 100 | 175495 | 6.25 | 6.06 | |
| 24 Carbon disulfide | 76 | 3.313 | 3.315 | -0.002 | 99 | 301103 | 6.25 | 6.19 | |
| 27 Methyl acetate | 43 | 3.432 | 3.433 | -0.001 | 100 | 212543 | 12.5 | 12.5 | |
| 26 3-Chloro-1-propene | 76 | 3.443 | 3.445 | -0.002 | 87 | 73569 | 6.25 | 5.67 | |
| 28 Methylene Chloride | 84 | 3.574 | 3.563 | 0.011 | 96 | 131329 | 6.25 | 6.25 | |
| 29 2-Methyl-2-propanol | 59 | 3.668 | 3.670 | -0.002 | 96 | 129375 | 62.5 | 61.5 | |
| 31 Acrylonitrile | 53 | 3.787 | 3.788 | -0.001 | 97 | 525158 | 62.5 | 60.5 | |
| 32 Methyl tert-butyl ether | 73 | 3.810 | 3.812 | -0.002 | 98 | 349464 | 6.25 | 6.17 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.822 | 3.812 | 0.010 | 91 | 116666 | 6.25 | 5.91 | |
| 33 Hexane | 86 | 4.059 | 4.060 | -0.001 | 94 | 23015 | 6.25 | 5.56 | |
| 35 Vinyl acetate | 43 | 4.201 | 4.202 | -0.001 | 97 | 214277 | 6.25 | 6.09 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.213 | 4.214 | -0.001 | 97 | 257634 | 6.25 | 6.17 | |
| 41 2-Butanone (MEK) | 43 | 4.698 | 4.699 | -0.001 | 98 | 117750 | 12.5 | 12.1 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.710 | 4.711 | -0.001 | 90 | 133012 | 6.25 | 6.36 | |
| 39 2,2-Dichloropropane | 97 | 4.721 | 4.723 | -0.002 | 91 | 33109 | 6.25 | 6.48 | |
| 45 Chlorobromomethane | 128 | 4.923 | 4.912 | 0.011 | 94 | 59333 | 6.25 | 5.95 | |
| 46 Tetrahydrofuran | 42 | 4.934 | 4.936 | -0.002 | 94 | 75384 | 12.5 | 12.4 | |
| 47 Chloroform | 83 | 5.005 | 5.007 | -0.002 | 98 | 228293 | 6.25 | 6.16 | |
| 48 1,1,1-Trichloroethane | 97 | 5.147 | 5.149 | -0.002 | 96 | 195439 | 6.25 | 6.11 | |
| 49 Cyclohexane | 56 | 5.207 | 5.208 | -0.001 | 92 | 246516 | 6.25 | 6.04 | |
| 50 1,1-Dichloropropene | 75 | 5.289 | 5.279 | 0.010 | 88 | 165666 | 6.25 | 5.99 | |
| 51 Carbon tetrachloride | 117 | 5.278 | 5.279 | -0.001 | 88 | 166433 | 6.25 | 6.08 | |
| 52 Isobutyl alcohol | 41 | 5.349 | 5.350 | -0.001 | 93 | 106122 | 156.3 | 151.8 | |
| 53 Benzene | 78 | 5.455 | 5.456 | -0.001 | 97 | 474203 | 6.25 | 6.18 | |
| 54 1,2-Dichloroethane | 62 | 5.502 | 5.504 | -0.002 | 97 | 212365 | 6.25 | 6.02 | |
| 56 n-Heptane | 100 | 5.692 | 5.693 | -0.001 | 95 | 22254 | 6.25 | 5.65 | |
| 58 Trichloroethene | 130 | 6.023 | 6.024 | -0.001 | 94 | 117712 | 6.25 | 6.00 | |
| 60 Methylcyclohexane | 83 | 6.224 | 6.226 | -0.002 | 97 | 174032 | 6.25 | 6.00 | |
| 61 1,2-Dichloropropane | 63 | 6.248 | 6.249 | -0.001 | 96 | 146255 | 6.25 | 6.32 | |
| 64 1,4-Dioxane | 88 | 6.307 | 6.308 | -0.001 | 95 | 20293 | 125.0 | 116.9 | |
| 63 Dibromomethane | 93 | 6.331 | 6.332 | -0.001 | 97 | 75438 | 6.25 | 6.03 | |
| 65 Dichlorobromomethane | 83 | 6.473 | 6.474 | -0.001 | 97 | 179115 | 6.25 | 6.08 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.709 | 6.711 | -0.002 | 93 | 168656 | 12.5 | 11.9 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.863 | 6.853 | 0.010 | 89 | 206401 | 6.25 | 6.03 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.981 | 6.983 | -0.002 | 98 | 264390 | 12.5 | 12.2 | |
| 70 Toluene | 91 | 7.159 | 7.160 | -0.001 | 97 | 503820 | 6.25 | 6.20 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.360 | 7.361 | -0.001 | 99 | 189318 | 6.25 | 6.05 | |
| 72 Ethyl methacrylate | 69 | 7.396 | 7.397 | -0.001 | 97 | 148023 | 6.25 | 6.01 | |
| 73 1,1,2-Trichloroethane | 97 | 7.549 | 7.551 | -0.002 | 96 | 98365 | 6.25 | 6.18 | |
| 74 Tetrachloroethene | 164 | 7.632 | 7.634 | -0.002 | 96 | 91466 | 6.25 | 6.00 | |
| 75 1,3-Dichloropropane | 76 | 7.703 | 7.693 | 0.010 | 97 | 180266 | 6.25 | 6.12 | |
| 76 2-Hexanone | 43 | 7.739 | 7.740 | -0.001 | 98 | 186195 | 12.5 | 12.6 | |
| 78 Chlorodibromomethane | 129 | 7.904 | 7.894 | 0.010 | 90 | 115150 | 6.25 | 6.01 | |
| 80 Ethylene Dibromide | 107 | 8.011 | 8.012 | -0.001 | 98 | 101381 | 6.25 | 6.08 | |
| 82 Chlorobenzene | 112 | 8.472 | 8.474 | -0.002 | 91 | 334562 | 6.25 | 6.46 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.555 | 8.545 | 0.010 | 93 | 121440 | 6.25 | 6.25 | |
| 84 Ethylbenzene | 106 | 8.555 | 8.557 | -0.002 | 99 | 174886 | 6.25 | 6.07 | |
| 85 m-Xylene & p-Xylene | 106 | 8.685 | 8.675 | 0.010 | 99 | 222056 | 6.25 | 6.14 | |
| 86 o-Xylene | 106 | 9.052 | 9.054 | -0.002 | 99 | 222689 | 6.25 | 6.16 | |
| 87 Styrene | 104 | 9.064 | 9.065 | -0.001 | 93 | 373154 | 6.25 | 6.08 | |
| 88 Bromoform | 173 | 9.253 | 9.255 | -0.002 | 96 | 81809 | 6.25 | 6.03 | |
| 89 Isopropylbenzene | 105 | 9.407 | 9.397 | 0.010 | 97 | 559553 | 6.25 | 6.17 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.703 | 9.693 | 0.011 | 96 | 131097 | 6.25 | 6.15 | |
| 93 Bromobenzene | 156 | 9.727 | 9.716 | 0.011 | 96 | 145372 | 6.25 | 6.04 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.739 | 9.740 | -0.001 | 78 | 51208 | 6.25 | 5.96 | |
| 94 1,2,3-Trichloropropane | 110 | 9.762 | 9.764 | -0.002 | 89 | 40429 | 6.25 | 6.26 | |
| 96 N-Propylbenzene | 120 | 9.810 | 9.811 | -0.001 | 99 | 149814 | 6.25 | 6.19 | |
| 97 2-Chlorotoluene | 126 | 9.904 | 9.906 | -0.002 | 95 | 132202 | 6.25 | 6.08 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.987 | 9.988 | -0.001 | 95 | 484421 | 6.25 | 6.21 | |
| 99 4-Chlorotoluene | 126 | 10.023 | 10.024 | -0.001 | 99 | 140537 | 6.25 | 6.14 | |
| 100 tert-Butylbenzene | 119 | 10.295 | 10.296 | -0.001 | 93 | 392969 | 6.25 | 6.28 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.354 | 10.355 | -0.001 | 98 | 513111 | 6.25 | 6.28 | |
| 103 sec-Butylbenzene | 105 | 10.519 | 10.521 | -0.002 | 95 | 578654 | 6.25 | 6.29 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.638 | 10.639 | -0.001 | 96 | 273159 | 6.25 | 6.18 | |
| 105 4-Isopropyltoluene | 119 | 10.673 | 10.663 | 0.010 | 96 | 489262 | 6.25 | 6.25 | |
| 106 1,4-Dichlorobenzene | 146 | 10.744 | 10.746 | -0.002 | 93 | 278045 | 6.25 | 6.16 | |
| 109 n-Butylbenzene | 91 | 11.076 | 11.077 | -0.001 | 98 | 458309 | 6.25 | 6.27 | |
| 110 1,2-Dichlorobenzene | 146 | 11.099 | 11.101 | -0.002 | 95 | 264898 | 6.25 | 6.30 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.880 | 11.882 | -0.002 | 80 | 26375 | 6.25 | 5.99 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.709 | 12.710 | -0.001 | 94 | 185167 | 6.25 | 6.13 | |
| 114 Hexachlorobutadiene | 225 | 12.851 | 12.852 | -0.001 | 97 | 77086 | 6.25 | 6.11 | |
| 115 Naphthalene | 128 | 12.981 | 12.982 | -0.001 | 99 | 358297 | 6.25 | 6.23 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.229 | 13.231 | -0.001 | 97 | 156827 | 6.25 | 6.17 | |
| S 156 Total BTEX | 1 | | | | 0 | | 31.3 | 30.8 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 25.0 | 24.3 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 12.3 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 12.1 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 12.5 | 12.3 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: | 5.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 5.00 | Units: uL | |
| VMRGAS_00488 | Amount Added: | 5.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

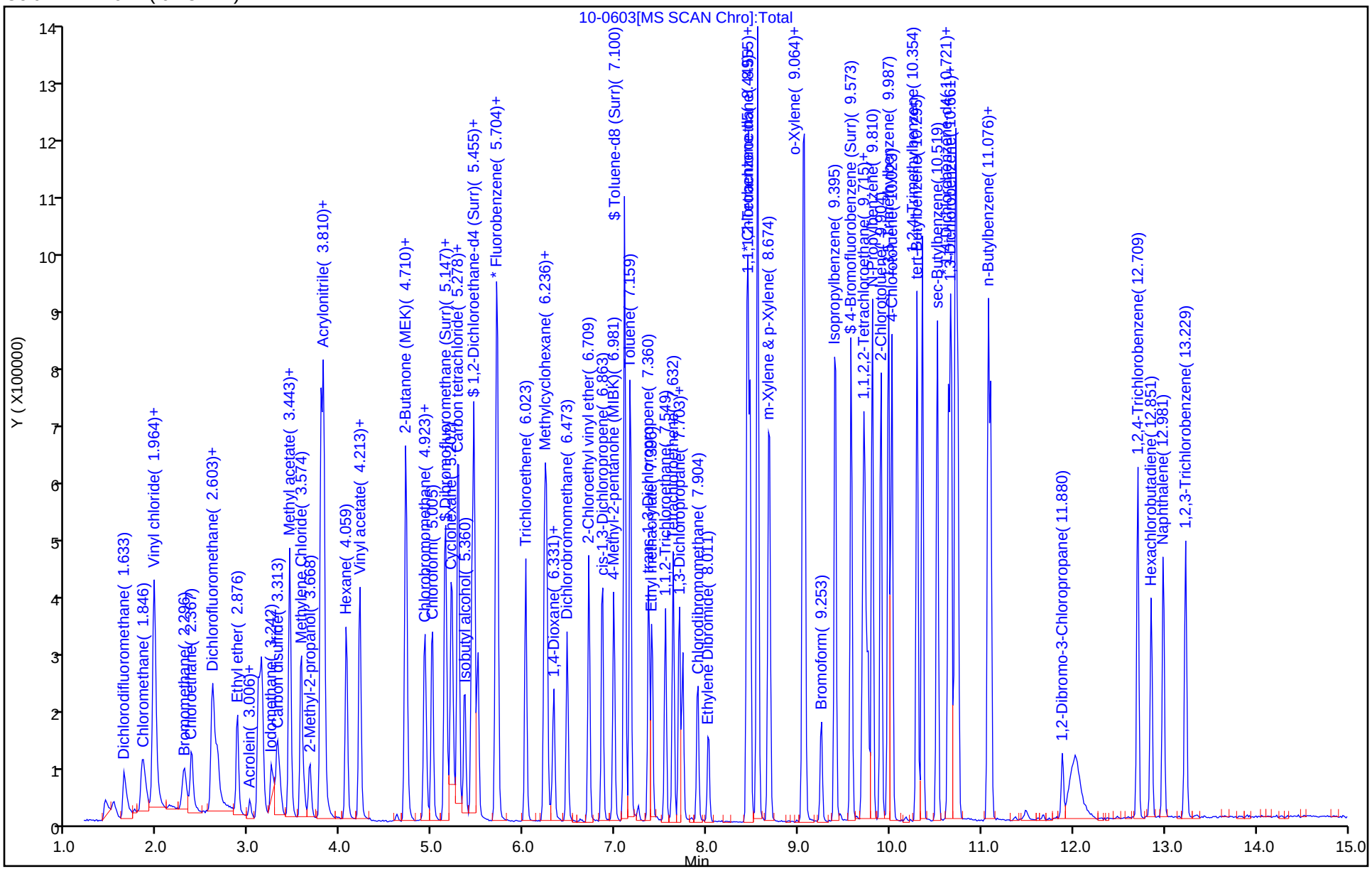
Report Date: 11-Aug-2023 13:58:13 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0603.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 16:31:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0604.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 10-Aug-2023 16:56:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-007
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:16 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 08:11:50

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.705 | 5.717 | -0.012 | 98 | 646871 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.439 | 8.438 | 0.001 | 92 | 508344 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.711 | 10.722 | -0.011 | 96 | 303316 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.137 | 5.137 | 0.000 | 92 | 167537 | 9.34 | 9.47 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.433 | 5.433 | 0.000 | 96 | 237520 | 9.34 | 9.45 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.102 | 7.101 | 0.001 | 95 | 626906 | 9.34 | 9.31 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.575 | 9.574 | 0.001 | 87 | 273152 | 9.34 | 9.24 | |
| 9 Dichlorodifluoromethane | 85 | 1.635 | 1.634 | 0.001 | 99 | 326207 | 12.5 | 11.8 | |
| 10 Chloromethane | 50 | 1.836 | 1.836 | 0.000 | 100 | 479202 | 12.5 | 12.5 | |
| 11 Vinyl chloride | 62 | 1.954 | 1.954 | 0.000 | 98 | 388268 | 12.5 | 11.6 | |
| 12 Butadiene | 54 | 1.966 | 1.966 | 0.000 | 89 | 451600 | 12.5 | 11.8 | |
| 13 Bromomethane | 94 | 2.286 | 2.285 | 0.001 | 92 | 200652 | 12.5 | 12.6 | |
| 14 Chloroethane | 64 | 2.369 | 2.368 | 0.000 | 98 | 223352 | 12.5 | 11.6 | |
| 15 Dichlorofluoromethane | 67 | 2.605 | 2.605 | 0.000 | 99 | 459741 | 12.5 | 11.8 | |
| 16 Trichlorofluoromethane | 101 | 2.593 | 2.605 | -0.012 | 98 | 379698 | 12.5 | 12.0 | |
| 17 Ethyl ether | 59 | 2.865 | 2.877 | -0.012 | 97 | 223530 | 12.5 | 12.0 | |
| 18 Acrolein | 56 | 3.007 | 3.007 | 0.000 | 99 | 58080 | 62.5 | 61.0 | |
| 19 1,1-Dichloroethene | 96 | 3.102 | 3.102 | 0.000 | 93 | 187198 | 12.5 | 11.6 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.138 | 3.137 | 0.001 | 95 | 155584 | 12.5 | 11.5 | |
| 21 Acetone | 43 | 3.138 | 3.149 | -0.011 | 99 | 165763 | 25.0 | 25.4 | |
| 22 Iodomethane | 142 | 3.244 | 3.244 | 0.000 | 100 | 351086 | 12.5 | 12.0 | |
| 24 Carbon disulfide | 76 | 3.303 | 3.315 | -0.012 | 99 | 604858 | 12.5 | 12.3 | |
| 27 Methyl acetate | 43 | 3.433 | 3.433 | 0.000 | 100 | 418437 | 25.0 | 24.4 | |
| 26 3-Chloro-1-propene | 76 | 3.445 | 3.445 | 0.000 | 88 | 162565 | 12.5 | 12.4 | |
| 28 Methylene Chloride | 84 | 3.564 | 3.563 | 0.001 | 95 | 254798 | 12.5 | 12.6 | |
| 29 2-Methyl-2-propanol | 59 | 3.658 | 3.670 | -0.012 | 97 | 262384 | 125.0 | 123.3 | |
| 31 Acrylonitrile | 53 | 3.777 | 3.788 | -0.011 | 97 | 1042337 | 125.0 | 118.7 | |
| 32 Methyl tert-butyl ether | 73 | 3.812 | 3.812 | 0.000 | 98 | 684863 | 12.5 | 12.0 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.812 | 3.812 | 0.000 | 80 | 232024 | 12.5 | 11.6 | |
| 33 Hexane | 86 | 4.061 | 4.060 | 0.001 | 93 | 46988 | 12.5 | 11.2 | |
| 35 Vinyl acetate | 43 | 4.203 | 4.202 | 0.001 | 97 | 444995 | 12.5 | 12.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.214 | 4.214 | 0.000 | 97 | 508751 | 12.5 | 12.0 | |
| 41 2-Butanone (MEK) | 43 | 4.700 | 4.699 | 0.001 | 98 | 228778 | 25.0 | 23.2 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.711 | 4.711 | 0.000 | 90 | 265295 | 12.5 | 12.5 | |
| 39 2,2-Dichloropropane | 97 | 4.723 | 4.723 | 0.000 | 91 | 64797 | 12.5 | 12.5 | |
| 45 Chlorobromomethane | 128 | 4.913 | 4.912 | 0.001 | 90 | 119185 | 12.5 | 11.8 | |
| 46 Tetrahydrofuran | 42 | 4.924 | 4.936 | -0.012 | 94 | 150463 | 25.0 | 24.5 | |
| 47 Chloroform | 83 | 4.995 | 5.007 | -0.012 | 98 | 449794 | 12.5 | 12.0 | |
| 48 1,1,1-Trichloroethane | 97 | 5.149 | 5.149 | 0.000 | 96 | 382774 | 12.5 | 11.8 | |
| 49 Cyclohexane | 56 | 5.208 | 5.208 | 0.000 | 93 | 488240 | 12.5 | 11.8 | |
| 50 1,1-Dichloropropene | 75 | 5.279 | 5.279 | 0.000 | 88 | 334048 | 12.5 | 11.9 | |
| 51 Carbon tetrachloride | 117 | 5.279 | 5.279 | 0.000 | 87 | 332820 | 12.5 | 12.0 | |
| 52 Isobutyl alcohol | 41 | 5.350 | 5.350 | 0.000 | 94 | 209697 | 312.5 | 292.4 | |
| 53 Benzene | 78 | 5.457 | 5.456 | 0.001 | 97 | 935983 | 12.5 | 12.1 | |
| 54 1,2-Dichloroethane | 62 | 5.492 | 5.504 | -0.012 | 97 | 419331 | 12.5 | 11.8 | |
| 56 n-Heptane | 100 | 5.694 | 5.693 | 0.001 | 95 | 46426 | 12.5 | 11.6 | |
| 58 Trichloroethene | 130 | 6.025 | 6.024 | 0.001 | 95 | 236747 | 12.5 | 11.9 | |
| 60 Methylcyclohexane | 83 | 6.226 | 6.226 | 0.000 | 97 | 338938 | 12.5 | 11.6 | |
| 61 1,2-Dichloropropane | 63 | 6.250 | 6.249 | 0.001 | 92 | 282267 | 12.5 | 12.1 | |
| 64 1,4-Dioxane | 88 | 6.309 | 6.308 | 0.001 | 94 | 40256 | 250.0 | 229.3 | |
| 63 Dibromomethane | 93 | 6.321 | 6.332 | -0.011 | 95 | 151598 | 12.5 | 12.0 | |
| 65 Dichlorobromomethane | 83 | 6.474 | 6.474 | 0.000 | 97 | 351346 | 12.5 | 11.8 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.711 | 6.711 | 0.000 | 92 | 349678 | 25.0 | 24.4 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.853 | 6.853 | 0.000 | 90 | 420963 | 12.5 | 12.2 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.983 | 6.983 | 0.000 | 98 | 533618 | 25.0 | 24.4 | |
| 70 Toluene | 91 | 7.161 | 7.160 | 0.001 | 97 | 997924 | 12.5 | 12.0 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.362 | 7.361 | 0.001 | 99 | 385543 | 12.5 | 12.0 | |
| 72 Ethyl methacrylate | 69 | 7.397 | 7.397 | 0.000 | 94 | 299580 | 12.5 | 11.9 | |
| 73 1,1,2-Trichloroethane | 97 | 7.551 | 7.551 | 0.000 | 96 | 197943 | 12.5 | 12.1 | |
| 74 Tetrachloroethene | 164 | 7.634 | 7.634 | 0.000 | 97 | 187179 | 12.5 | 12.0 | |
| 75 1,3-Dichloropropane | 76 | 7.693 | 7.693 | 0.000 | 96 | 362872 | 12.5 | 12.0 | |
| 76 2-Hexanone | 43 | 7.741 | 7.740 | 0.001 | 95 | 367498 | 25.0 | 24.2 | |
| 78 Chlorodibromomethane | 129 | 7.894 | 7.894 | 0.000 | 90 | 237564 | 12.5 | 12.1 | |
| 80 Ethylene Dibromide | 107 | 8.013 | 8.012 | 0.001 | 98 | 205781 | 12.5 | 12.0 | |
| 82 Chlorobenzene | 112 | 8.474 | 8.474 | 0.000 | 91 | 658970 | 12.5 | 12.4 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.545 | 8.545 | 0.000 | 92 | 242886 | 12.5 | 12.2 | |
| 84 Ethylbenzene | 106 | 8.557 | 8.557 | 0.000 | 99 | 359513 | 12.5 | 12.2 | |
| 85 m-Xylene & p-Xylene | 106 | 8.675 | 8.675 | 0.000 | 98 | 446828 | 12.5 | 12.1 | |
| 86 o-Xylene | 106 | 9.054 | 9.054 | 0.000 | 97 | 451730 | 12.5 | 12.2 | |
| 87 Styrene | 104 | 9.066 | 9.065 | 0.001 | 92 | 773960 | 12.5 | 12.3 | |
| 88 Bromoform | 173 | 9.255 | 9.255 | 0.000 | 96 | 168498 | 12.5 | 12.1 | |
| 89 Isopropylbenzene | 105 | 9.397 | 9.397 | 0.000 | 98 | 1129796 | 12.5 | 12.1 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.705 | 9.693 | 0.013 | 96 | 270216 | 12.5 | 12.2 | |
| 93 Bromobenzene | 156 | 9.717 | 9.716 | 0.001 | 97 | 304655 | 12.5 | 12.2 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.740 | 9.740 | 0.000 | 80 | 103183 | 12.5 | 11.6 | |
| 94 1,2,3-Trichloropropane | 110 | 9.764 | 9.764 | 0.000 | 88 | 81375 | 12.5 | 12.2 | |
| 96 N-Propylbenzene | 120 | 9.811 | 9.811 | 0.000 | 99 | 305331 | 12.5 | 12.2 | |
| 97 2-Chlorotoluene | 126 | 9.906 | 9.906 | 0.000 | 95 | 275187 | 12.5 | 12.2 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.989 | 9.988 | 0.001 | 93 | 989457 | 12.5 | 12.2 | |
| 99 4-Chlorotoluene | 126 | 10.024 | 10.024 | 0.000 | 99 | 289266 | 12.5 | 12.2 | |
| 100 tert-Butylbenzene | 119 | 10.296 | 10.296 | 0.000 | 93 | 797278 | 12.5 | 12.3 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.356 | 10.355 | 0.001 | 98 | 1049127 | 12.5 | 12.4 | |
| 103 sec-Butylbenzene | 105 | 10.521 | 10.521 | 0.000 | 96 | 1166310 | 12.5 | 12.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.640 | 10.639 | 0.001 | 97 | 553845 | 12.5 | 12.1 | |
| 105 4-Isopropyltoluene | 119 | 10.663 | 10.663 | 0.000 | 96 | 989598 | 12.5 | 12.2 | |
| 106 1,4-Dichlorobenzene | 146 | 10.746 | 10.746 | 0.000 | 96 | 560667 | 12.5 | 12.0 | |
| 109 n-Butylbenzene | 91 | 11.077 | 11.077 | 0.000 | 98 | 924508 | 12.5 | 12.2 | |
| 110 1,2-Dichlorobenzene | 146 | 11.101 | 11.101 | 0.000 | 95 | 527296 | 12.5 | 12.1 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.882 | 11.882 | 0.000 | 82 | 54837 | 12.5 | 12.0 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.710 | 12.710 | 0.000 | 94 | 374315 | 12.5 | 11.9 | |
| 114 Hexachlorobutadiene | 225 | 12.852 | 12.852 | 0.000 | 97 | 156001 | 12.5 | 11.9 | |
| 115 Naphthalene | 128 | 12.983 | 12.982 | 0.001 | 99 | 714299 | 12.5 | 12.0 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.231 | 13.231 | 0.001 | 98 | 316638 | 12.5 | 12.0 | |
| S 156 Total BTEX | 1 | | | | 0 | | 62.5 | 60.4 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 50.0 | 48.0 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 24.2 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 24.2 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 25.0 | 24.2 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: | 10.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 10.00 | Units: uL | |
| VMRGAS_00488 | Amount Added: | 10.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

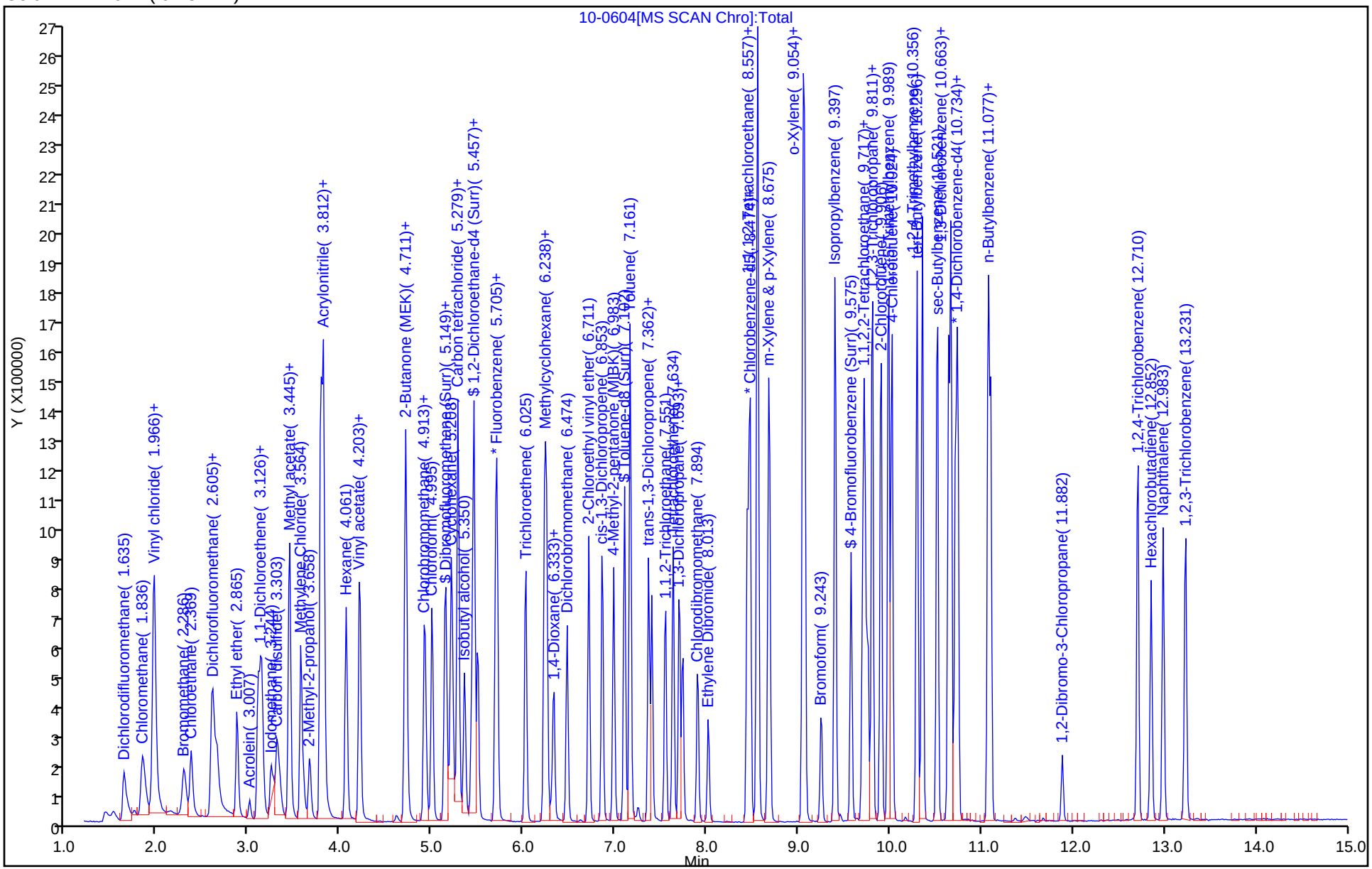
Report Date: 11-Aug-2023 13:58:16 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0604.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 16:56:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0605.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 10-Aug-2023 17:21:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-008
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:19 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 08:10:12

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.714 | 5.714 | 0.000 | 98 | 647489 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.447 | 8.447 | 0.000 | 90 | 506622 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.719 | 10.719 | 0.000 | 95 | 301796 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.134 | 5.134 | 0.000 | 93 | 168139 | 9.34 | 9.50 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.430 | 0.000 | 97 | 237326 | 9.34 | 9.43 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.098 | 7.098 | 0.000 | 95 | 629882 | 9.34 | 9.38 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.571 | 9.571 | 0.000 | 88 | 275157 | 9.34 | 9.34 | |
| 9 Dichlorodifluoromethane | 85 | 1.631 | 1.631 | 0.000 | 99 | 729983 | 25.0 | 26.3 | |
| 10 Chloromethane | 50 | 1.832 | 1.832 | 0.000 | 100 | 905476 | 25.0 | 23.6 | |
| 11 Vinyl chloride | 62 | 1.951 | 1.951 | 0.000 | 99 | 769777 | 25.0 | 23.0 | |
| 12 Butadiene | 54 | 1.963 | 1.963 | 0.000 | 89 | 941307 | 25.0 | 24.7 | |
| 13 Bromomethane | 94 | 2.294 | 2.294 | 0.000 | 92 | 366147 | 25.0 | 23.0 | |
| 14 Chloroethane | 64 | 2.365 | 2.365 | 0.000 | 98 | 426546 | 25.0 | 22.2 | |
| 15 Dichlorofluoromethane | 67 | 2.602 | 2.602 | 0.000 | 99 | 868371 | 25.0 | 22.3 | |
| 16 Trichlorofluoromethane | 101 | 2.590 | 2.590 | 0.000 | 99 | 802109 | 25.0 | 25.3 | |
| 17 Ethyl ether | 59 | 2.874 | 2.874 | 0.000 | 98 | 430991 | 25.0 | 23.1 | |
| 18 Acrolein | 56 | 3.004 | 3.004 | 0.000 | 99 | 113954 | 125.0 | 119.5 | |
| 19 1,1-Dichloroethene | 96 | 3.099 | 3.099 | 0.000 | 92 | 387904 | 25.0 | 24.0 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.134 | 3.134 | 0.000 | 97 | 356462 | 25.0 | 26.4 | |
| 21 Acetone | 43 | 3.146 | 3.146 | 0.000 | 99 | 311016 | 50.0 | 49.8 | |
| 22 Iodomethane | 142 | 3.241 | 3.241 | 0.000 | 99 | 664105 | 25.0 | 22.7 | |
| 24 Carbon disulfide | 76 | 3.312 | 3.312 | 0.000 | 99 | 1193729 | 25.0 | 24.2 | |
| 27 Methyl acetate | 43 | 3.430 | 3.430 | 0.000 | 100 | 844700 | 50.0 | 49.2 | |
| 26 3-Chloro-1-propene | 76 | 3.442 | 3.442 | 0.000 | 88 | 323375 | 25.0 | 24.6 | |
| 28 Methylene Chloride | 84 | 3.572 | 3.572 | 0.000 | 95 | 460020 | 25.0 | 23.3 | |
| 29 2-Methyl-2-propanol | 59 | 3.666 | 3.666 | 0.000 | 97 | 509869 | 250.0 | 239.4 | |
| 31 Acrylonitrile | 53 | 3.785 | 3.785 | 0.000 | 98 | 2090187 | 250.0 | 237.8 | |
| 32 Methyl tert-butyl ether | 73 | 3.808 | 3.808 | 0.000 | 98 | 1315563 | 25.0 | 23.0 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.808 | 3.808 | 0.000 | 94 | 445476 | 25.0 | 22.3 | |
| 33 Hexane | 86 | 4.057 | 4.057 | 0.000 | 93 | 108954 | 25.0 | 26.0 | |
| 35 Vinyl acetate | 43 | 4.199 | 4.199 | 0.000 | 97 | 827129 | 25.0 | 23.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.211 | 4.211 | 0.000 | 97 | 977533 | 25.0 | 23.1 | |
| 41 2-Butanone (MEK) | 43 | 4.696 | 4.696 | 0.000 | 98 | 457605 | 50.0 | 46.4 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.708 | 4.708 | 0.000 | 90 | 492628 | 25.0 | 23.3 | |
| 39 2,2-Dichloropropane | 97 | 4.720 | 4.720 | 0.000 | 92 | 118904 | 25.0 | 23.0 | |
| 45 Chlorobromomethane | 128 | 4.921 | 4.921 | 0.000 | 93 | 224055 | 25.0 | 22.2 | |
| 46 Tetrahydrofuran | 42 | 4.933 | 4.933 | 0.000 | 94 | 294430 | 50.0 | 47.9 | |
| 47 Chloroform | 83 | 5.004 | 5.004 | 0.000 | 98 | 842938 | 25.0 | 22.5 | |
| 48 1,1,1-Trichloroethane | 97 | 5.146 | 5.146 | 0.000 | 96 | 759757 | 25.0 | 23.4 | |
| 49 Cyclohexane | 56 | 5.217 | 5.217 | 0.000 | 93 | 1087606 | 25.0 | 26.3 | |
| 50 1,1-Dichloropropene | 75 | 5.288 | 5.288 | 0.000 | 88 | 671311 | 25.0 | 24.0 | |
| 51 Carbon tetrachloride | 117 | 5.288 | 5.288 | 0.000 | 87 | 688291 | 25.0 | 24.9 | |
| 52 Isobutyl alcohol | 41 | 5.359 | 5.359 | 0.000 | 94 | 415035 | 625.0 | 580.7 | |
| 53 Benzene | 78 | 5.453 | 5.453 | 0.000 | 97 | 1791780 | 25.0 | 23.1 | |
| 54 1,2-Dichloroethane | 62 | 5.501 | 5.501 | 0.000 | 97 | 797327 | 25.0 | 22.3 | |
| 56 n-Heptane | 100 | 5.690 | 5.690 | 0.000 | 96 | 110215 | 25.0 | 27.6 | |
| 58 Trichloroethene | 130 | 6.021 | 6.021 | 0.000 | 95 | 455099 | 25.0 | 22.9 | |
| 60 Methylcyclohexane | 83 | 6.234 | 6.234 | 0.000 | 96 | 779548 | 25.0 | 26.5 | |
| 61 1,2-Dichloropropane | 63 | 6.246 | 6.246 | 0.000 | 86 | 534181 | 25.0 | 22.8 | |
| 64 1,4-Dioxane | 88 | 6.305 | 6.305 | 0.000 | 95 | 77291 | 500.0 | 439.8 | |
| 63 Dibromomethane | 93 | 6.329 | 6.329 | 0.000 | 96 | 279653 | 25.0 | 22.1 | |
| 65 Dichlorobromomethane | 83 | 6.471 | 6.471 | 0.000 | 98 | 663827 | 25.0 | 22.3 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.708 | 6.708 | 0.000 | 93 | 671257 | 50.0 | 46.8 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.861 | 6.861 | 0.000 | 90 | 791877 | 25.0 | 22.8 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.980 | 6.980 | 0.000 | 98 | 1039636 | 50.0 | 47.4 | |
| 70 Toluene | 91 | 7.169 | 7.169 | 0.000 | 97 | 1896450 | 25.0 | 22.8 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.370 | 7.370 | 0.000 | 98 | 726241 | 25.0 | 22.7 | |
| 72 Ethyl methacrylate | 69 | 7.406 | 7.406 | 0.000 | 94 | 583113 | 25.0 | 23.2 | |
| 73 1,1,2-Trichloroethane | 97 | 7.548 | 7.548 | 0.000 | 96 | 372290 | 25.0 | 22.9 | |
| 74 Tetrachloroethene | 164 | 7.630 | 7.630 | 0.000 | 94 | 365901 | 25.0 | 23.5 | |
| 75 1,3-Dichloropropane | 76 | 7.701 | 7.701 | 0.000 | 96 | 696509 | 25.0 | 23.2 | |
| 76 2-Hexanone | 43 | 7.737 | 7.737 | 0.000 | 97 | 717376 | 50.0 | 47.4 | |
| 78 Chlorodibromomethane | 129 | 7.903 | 7.903 | 0.000 | 91 | 447780 | 25.0 | 22.9 | |
| 80 Ethylene Dibromide | 107 | 8.021 | 8.021 | 0.000 | 98 | 390938 | 25.0 | 22.9 | |
| 82 Chlorobenzene | 112 | 8.471 | 8.471 | 0.000 | 90 | 1234320 | 25.0 | 23.3 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.553 | 8.553 | 0.000 | 93 | 458382 | 25.0 | 23.1 | |
| 84 Ethylbenzene | 106 | 8.553 | 8.553 | 0.000 | 99 | 678780 | 25.0 | 23.0 | |
| 85 m-Xylene & p-Xylene | 106 | 8.684 | 8.684 | 0.000 | 99 | 847185 | 25.0 | 22.9 | |
| 86 o-Xylene | 106 | 9.050 | 9.050 | 0.000 | 99 | 846874 | 25.0 | 22.9 | |
| 87 Styrene | 104 | 9.074 | 9.074 | 0.000 | 95 | 1446352 | 25.0 | 23.1 | |
| 88 Bromoform | 173 | 9.252 | 9.252 | 0.000 | 97 | 333766 | 25.0 | 24.1 | |
| 89 Isopropylbenzene | 105 | 9.405 | 9.405 | 0.000 | 98 | 2169942 | 25.0 | 23.4 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.701 | 9.701 | 0.000 | 97 | 509687 | 25.0 | 23.2 | |
| 93 Bromobenzene | 156 | 9.725 | 9.725 | 0.000 | 96 | 571614 | 25.0 | 23.0 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.737 | 9.737 | 0.000 | 80 | 209796 | 25.0 | 23.7 | |
| 94 1,2,3-Trichloropropane | 110 | 9.760 | 9.760 | 0.000 | 89 | 156090 | 25.0 | 23.4 | |
| 96 N-Propylbenzene | 120 | 9.808 | 9.808 | 0.000 | 99 | 588488 | 25.0 | 23.6 | |
| 97 2-Chlorotoluene | 126 | 9.902 | 9.902 | 0.000 | 95 | 514883 | 25.0 | 22.9 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.985 | 9.985 | 0.000 | 95 | 1877892 | 25.0 | 23.3 | |
| 99 4-Chlorotoluene | 126 | 10.021 | 10.021 | 0.000 | 99 | 539553 | 25.0 | 22.8 | |
| 100 tert-Butylbenzene | 119 | 10.293 | 10.293 | 0.000 | 93 | 1515467 | 25.0 | 23.5 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.352 | 10.352 | 0.000 | 98 | 1960911 | 25.0 | 23.2 | |
| 103 sec-Butylbenzene | 105 | 10.518 | 10.518 | 0.000 | 96 | 2251980 | 25.0 | 23.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.636 | 10.636 | 0.000 | 96 | 1019447 | 25.0 | 22.4 | |
| 105 4-Isopropyltoluene | 119 | 10.672 | 10.672 | 0.000 | 96 | 1917178 | 25.0 | 23.7 | |
| 106 1,4-Dichlorobenzene | 146 | 10.743 | 10.743 | 0.000 | 92 | 1054629 | 25.0 | 22.6 | |
| 109 n-Butylbenzene | 91 | 11.074 | 11.074 | 0.000 | 98 | 1782248 | 25.0 | 23.6 | |
| 110 1,2-Dichlorobenzene | 146 | 11.097 | 11.097 | 0.000 | 94 | 988849 | 25.0 | 22.8 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.890 | 11.890 | 0.000 | 93 | 113318 | 25.0 | 24.9 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.707 | 12.707 | 0.000 | 94 | 704853 | 25.0 | 22.6 | |
| 114 Hexachlorobutadiene | 225 | 12.861 | 12.861 | 0.000 | 97 | 302809 | 25.0 | 23.3 | |
| 115 Naphthalene | 128 | 12.991 | 12.991 | 0.000 | 99 | 1385413 | 25.0 | 23.3 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.227 | 13.227 | 0.000 | 97 | 603337 | 25.0 | 23.0 | |
| S 156 Total BTEX | 1 | | | | 0 | | 125.0 | 114.8 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 91.7 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 45.9 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: | 20.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 20.00 | Units: uL | |
| VMRGAS_00488 | Amount Added: | 20.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

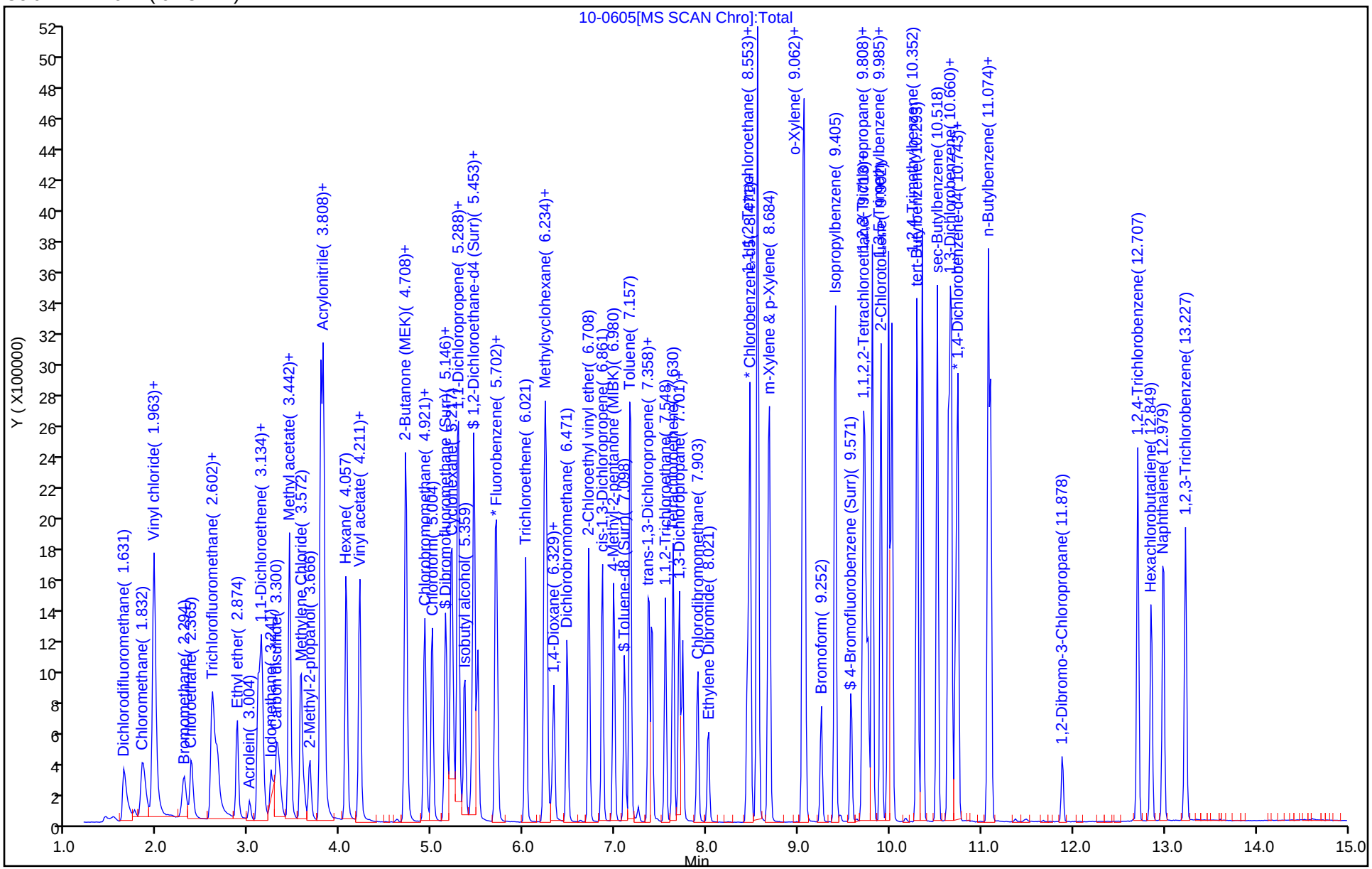
Report Date: 11-Aug-2023 13:58:20 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0605.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 17:21:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | icis | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0606.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 10-Aug-2023 17:46:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-009
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:23 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.717 | 5.714 | 0.003 | 98 | 663718 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.450 | 8.447 | 0.003 | 89 | 510229 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.722 | 10.719 | 0.003 | 95 | 311584 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.137 | 5.134 | 0.003 | 92 | 172191 | 9.34 | 9.49 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.433 | 5.430 | 0.003 | 97 | 233122 | 9.34 | 9.04 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.101 | 7.098 | 0.003 | 95 | 639708 | 9.34 | 9.46 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.574 | 9.571 | 0.003 | 86 | 283075 | 9.34 | 9.54 | |
| 9 Dichlorodifluoromethane | 85 | 1.635 | 1.631 | 0.004 | 99 | 1026050 | 37.5 | 36.0 | |
| 10 Chloromethane | 50 | 1.848 | 1.832 | 0.016 | 100 | 1450582 | 37.5 | 36.8 | |
| 11 Vinyl chloride | 62 | 1.954 | 1.951 | 0.003 | 99 | 1201466 | 37.5 | 35.1 | |
| 12 Butadiene | 54 | 1.966 | 1.963 | 0.003 | 89 | 1402727 | 37.5 | 35.8 | |
| 13 Bromomethane | 94 | 2.297 | 2.294 | 0.003 | 91 | 597914 | 37.5 | 36.6 | |
| 14 Chloroethane | 64 | 2.368 | 2.365 | 0.003 | 98 | 696271 | 37.5 | 35.3 | |
| 16 Trichlorofluoromethane | 101 | 2.593 | 2.590 | 0.003 | 99 | 1184026 | 37.5 | 36.4 | |
| 15 Dichlorofluoromethane | 67 | 2.605 | 2.602 | 0.003 | 99 | 1410077 | 37.5 | 35.4 | |
| 17 Ethyl ether | 59 | 2.877 | 2.874 | 0.003 | 97 | 694563 | 37.5 | 36.3 | |
| 18 Acrolein | 56 | 3.007 | 3.004 | 0.003 | 99 | 176152 | 187.5 | 180.2 | |
| 19 1,1-Dichloroethene | 96 | 3.102 | 3.099 | 0.004 | 93 | 588734 | 37.5 | 35.5 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.137 | 3.134 | 0.003 | 96 | 502482 | 37.5 | 36.3 | |
| 21 Acetone | 43 | 3.137 | 3.146 | -0.009 | 100 | 470132 | 75.0 | 74.6 | |
| 22 Iodomethane | 142 | 3.244 | 3.241 | 0.004 | 99 | 1082932 | 37.5 | 36.1 | |
| 24 Carbon disulfide | 76 | 3.315 | 3.312 | 0.003 | 100 | 1863503 | 37.5 | 36.9 | |
| 27 Methyl acetate | 43 | 3.433 | 3.430 | 0.003 | 99 | 1310867 | 75.0 | 74.4 | |
| 26 3-Chloro-1-propene | 76 | 3.445 | 3.442 | 0.003 | 88 | 512411 | 37.5 | 38.1 | |
| 28 Methylene Chloride | 84 | 3.563 | 3.572 | -0.009 | 95 | 752897 | 37.5 | 37.6 | |
| 29 2-Methyl-2-propanol | 59 | 3.670 | 3.666 | 0.004 | 97 | 795203 | 375.0 | 364.2 | |
| 31 Acrylonitrile | 53 | 3.788 | 3.785 | 0.003 | 97 | 3221374 | 375.0 | 357.6 | |
| 32 Methyl tert-butyl ether | 73 | 3.812 | 3.808 | 0.004 | 98 | 2102919 | 37.5 | 35.8 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.812 | 3.808 | 0.004 | 78 | 716356 | 37.5 | 35.0 | |
| 33 Hexane | 86 | 4.060 | 4.057 | 0.003 | 93 | 150332 | 37.5 | 35.0 | |
| 35 Vinyl acetate | 43 | 4.202 | 4.199 | 0.003 | 97 | 1377946 | 37.5 | 37.7 | |
| 34 1,1-Dichloroethane | 63 | 4.214 | 4.211 | 0.003 | 97 | 1566807 | 37.5 | 36.1 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 41 2-Butanone (MEK) | 43 | 4.699 | 4.696 | 0.003 | 98 | 698437 | 75.0 | 69.1 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.711 | 4.708 | 0.003 | 89 | 804039 | 37.5 | 37.1 | |
| 39 2,2-Dichloropropane | 97 | 4.723 | 4.720 | 0.003 | 91 | 188297 | 37.5 | 35.5 | |
| 45 Chlorobromomethane | 128 | 4.912 | 4.921 | -0.009 | 91 | 368396 | 37.5 | 35.6 | |
| 46 Tetrahydrofuran | 42 | 4.924 | 4.933 | -0.009 | 95 | 455488 | 75.0 | 72.2 | |
| 47 Chloroform | 83 | 4.995 | 5.004 | -0.009 | 98 | 1372814 | 37.5 | 35.7 | |
| 48 1,1,1-Trichloroethane | 97 | 5.149 | 5.146 | 0.003 | 97 | 1196125 | 37.5 | 36.0 | |
| 49 Cyclohexane | 56 | 5.208 | 5.217 | -0.009 | 93 | 1543619 | 37.5 | 36.5 | |
| 50 1,1-Dichloropropene | 75 | 5.279 | 5.288 | -0.009 | 88 | 1022960 | 37.5 | 35.6 | |
| 51 Carbon tetrachloride | 117 | 5.279 | 5.288 | -0.009 | 87 | 1021490 | 37.5 | 36.0 | |
| 52 Isobutyl alcohol | 41 | 5.350 | 5.359 | -0.009 | 94 | 637992 | 937.5 | 886.3 | |
| 53 Benzene | 78 | 5.457 | 5.453 | 0.004 | 98 | 2856871 | 37.5 | 35.9 | |
| 54 1,2-Dichloroethane | 62 | 5.504 | 5.501 | 0.003 | 97 | 1274871 | 37.5 | 34.8 | |
| 56 n-Heptane | 100 | 5.693 | 5.690 | 0.003 | 95 | 150881 | 37.5 | 36.9 | |
| 58 Trichloroethene | 130 | 6.025 | 6.021 | 0.004 | 95 | 714766 | 37.5 | 35.1 | |
| 60 Methylcyclohexane | 83 | 6.226 | 6.234 | -0.008 | 98 | 1082569 | 37.5 | 36.0 | |
| 61 1,2-Dichloropropane | 63 | 6.249 | 6.246 | 0.003 | 95 | 857952 | 37.5 | 35.7 | |
| 64 1,4-Dioxane | 88 | 6.309 | 6.305 | 0.004 | 96 | 128684 | 750.0 | 714.3 | |
| 63 Dibromomethane | 93 | 6.332 | 6.329 | 0.003 | 97 | 457751 | 37.5 | 35.3 | |
| 65 Dichlorobromomethane | 83 | 6.474 | 6.471 | 0.003 | 97 | 1067974 | 37.5 | 34.9 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.711 | 6.708 | 0.003 | 93 | 1074167 | 75.0 | 73.1 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.853 | 6.861 | -0.008 | 90 | 1282255 | 37.5 | 36.1 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.983 | 6.980 | 0.003 | 98 | 1607873 | 75.0 | 71.5 | |
| 70 Toluene | 91 | 7.161 | 7.169 | -0.008 | 97 | 3038222 | 37.5 | 36.3 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.362 | 7.370 | -0.008 | 99 | 1178263 | 37.5 | 36.6 | |
| 72 Ethyl methacrylate | 69 | 7.397 | 7.406 | -0.009 | 94 | 919994 | 37.5 | 36.3 | |
| 73 1,1,2-Trichloroethane | 97 | 7.551 | 7.548 | 0.003 | 96 | 607659 | 37.5 | 37.1 | |
| 74 Tetrachloroethene | 164 | 7.634 | 7.630 | 0.004 | 94 | 572980 | 37.5 | 36.5 | |
| 75 1,3-Dichloropropane | 76 | 7.705 | 7.701 | 0.004 | 96 | 1104959 | 37.5 | 36.5 | |
| 76 2-Hexanone | 43 | 7.740 | 7.737 | 0.003 | 97 | 1090881 | 75.0 | 71.5 | |
| 78 Chlorodibromomethane | 129 | 7.906 | 7.903 | 0.003 | 90 | 728361 | 37.5 | 36.9 | |
| 80 Ethylene Dibromide | 107 | 8.013 | 8.021 | -0.009 | 98 | 631519 | 37.5 | 36.8 | |
| 82 Chlorobenzene | 112 | 8.474 | 8.471 | 0.003 | 90 | 1994996 | 37.5 | 37.4 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.557 | 8.553 | 0.004 | 93 | 740108 | 37.5 | 37.0 | |
| 84 Ethylbenzene | 106 | 8.557 | 8.553 | 0.004 | 99 | 1077819 | 37.5 | 36.3 | |
| 85 m-Xylene & p-Xylene | 106 | 8.675 | 8.684 | -0.009 | 98 | 1340511 | 37.5 | 36.0 | |
| 86 o-Xylene | 106 | 9.054 | 9.050 | 0.004 | 98 | 1347969 | 37.5 | 36.2 | |
| 87 Styrene | 104 | 9.066 | 9.074 | -0.008 | 92 | 2318103 | 37.5 | 36.7 | |
| 88 Bromoform | 173 | 9.255 | 9.252 | 0.003 | 97 | 528287 | 37.5 | 37.8 | |
| 89 Isopropylbenzene | 105 | 9.397 | 9.405 | -0.008 | 98 | 3397954 | 37.5 | 36.4 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.705 | 9.701 | 0.004 | 97 | 797970 | 37.5 | 35.1 | |
| 93 Bromobenzene | 156 | 9.716 | 9.725 | -0.009 | 97 | 917113 | 37.5 | 35.8 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.740 | 9.737 | 0.003 | 81 | 317413 | 37.5 | 34.7 | |
| 94 1,2,3-Trichloropropane | 110 | 9.764 | 9.760 | 0.004 | 88 | 240669 | 37.5 | 35.0 | |
| 96 N-Propylbenzene | 120 | 9.811 | 9.808 | 0.003 | 99 | 927158 | 37.5 | 36.0 | |
| 97 2-Chlorotoluene | 126 | 9.906 | 9.902 | 0.004 | 95 | 827740 | 37.5 | 35.7 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.989 | 9.985 | 0.004 | 93 | 2976914 | 37.5 | 35.8 | |
| 99 4-Chlorotoluene | 126 | 10.024 | 10.021 | 0.003 | 99 | 858650 | 37.5 | 35.2 | |
| 100 tert-Butylbenzene | 119 | 10.296 | 10.293 | 0.003 | 93 | 2367976 | 37.5 | 35.5 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.355 | 10.352 | 0.003 | 99 | 3114443 | 37.5 | 35.8 | |
| 103 sec-Butylbenzene | 105 | 10.521 | 10.518 | 0.003 | 96 | 3504470 | 37.5 | 35.8 | |
| 104 1,3-Dichlorobenzene | 146 | 10.639 | 10.636 | 0.003 | 96 | 1662486 | 37.5 | 35.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 105 4-Isopropyltoluene | 119 | 10.663 | 10.672 | -0.009 | 96 | 3003394 | 37.5 | 36.0 | |
| 106 1,4-Dichlorobenzene | 146 | 10.746 | 10.743 | 0.004 | 93 | 1692546 | 37.5 | 35.2 | |
| 109 n-Butylbenzene | 91 | 11.077 | 11.074 | 0.003 | 98 | 2800472 | 37.5 | 35.9 | |
| 110 1,2-Dichlorobenzene | 146 | 11.101 | 11.097 | 0.004 | 95 | 1579480 | 37.5 | 35.3 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.882 | 11.890 | -0.008 | 82 | 170382 | 37.5 | 36.3 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.710 | 12.707 | 0.003 | 94 | 1137681 | 37.5 | 35.3 | |
| 114 Hexachlorobutadiene | 225 | 12.852 | 12.861 | -0.009 | 97 | 482642 | 37.5 | 35.9 | |
| 115 Naphthalene | 128 | 12.982 | 12.991 | -0.009 | 98 | 2159519 | 37.5 | 35.2 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.231 | 13.227 | 0.004 | 98 | 949750 | 37.5 | 35.1 | |
| S 156 Total BTEX | 1 | | | | 0 | | 187.5 | 180.8 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 150.0 | 145.4 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 72.0 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 72.6 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 75.0 | 72.3 | |

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: 30.00 | Units: uL | | |
| VMAROLISTDW_00496 | Amount Added: 30.00 | Units: uL | | |
| VMRGAS_00488 | Amount Added: 30.00 | Units: uL | | |
| vm50ss_stk_00094 | Amount Added: 0.93 | Units: uL | Run Reagent | |
| vm50is_stk_A_00019 | Amount Added: 1.00 | Units: uL | Run Reagent | |
| vm40ml_vials_00024 | Amount Added: 0.00 | Units: | Run Reagent | |
| vmDist_H2o_00239 | Amount Added: 0.00 | Units: | Run Reagent | |

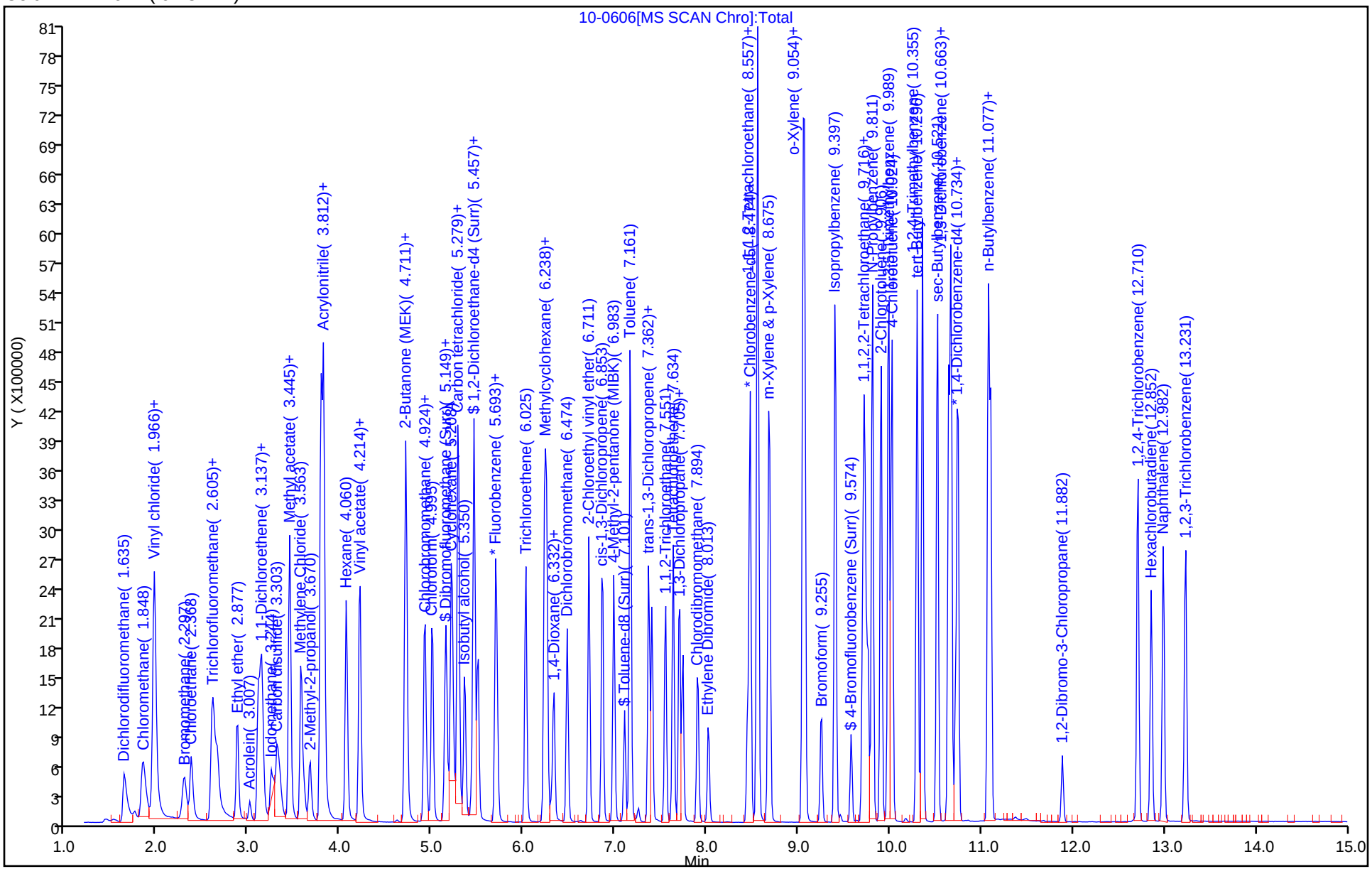
Report Date: 11-Aug-2023 13:58:23 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0606.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 17:46:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0607.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 10-Aug-2023 18:11:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-010
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:27 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 08:12:37

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.714 | 5.714 | 0.000 | 98 | 655128 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.447 | 8.447 | 0.000 | 89 | 521042 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.719 | 10.719 | 0.000 | 96 | 305267 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.134 | 5.134 | 0.000 | 92 | 166547 | 9.34 | 9.30 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.430 | 0.000 | 99 | 231247 | 9.34 | 9.08 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.098 | 7.098 | 0.000 | 94 | 635121 | 9.34 | 9.20 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.571 | 9.571 | 0.000 | 89 | 287583 | 9.34 | 9.49 | |
| 9 Dichlorodifluoromethane | 85 | 1.631 | 1.631 | 0.000 | 99 | 1352784 | 50.0 | 48.2 | |
| 10 Chloromethane | 50 | 1.844 | 1.832 | 0.012 | 100 | 1887867 | 50.0 | 48.6 | |
| 11 Vinyl chloride | 62 | 1.951 | 1.951 | 0.000 | 99 | 1574055 | 50.0 | 46.5 | |
| 12 Butadiene | 54 | 1.963 | 1.963 | 0.000 | 89 | 1790842 | 50.0 | 46.4 | |
| 13 Bromomethane | 94 | 2.294 | 2.294 | 0.000 | 92 | 774681 | 50.0 | 48.0 | |
| 14 Chloroethane | 64 | 2.365 | 2.365 | 0.000 | 98 | 896893 | 50.0 | 46.1 | |
| 16 Trichlorofluoromethane | 101 | 2.590 | 2.590 | 0.000 | 99 | 1528859 | 50.0 | 47.6 | |
| 15 Dichlorofluoromethane | 67 | 2.602 | 2.602 | 0.000 | 99 | 1820652 | 50.0 | 46.3 | |
| 17 Ethyl ether | 59 | 2.874 | 2.874 | 0.000 | 97 | 900864 | 50.0 | 47.7 | |
| 18 Acrolein | 56 | 3.004 | 3.004 | 0.000 | 99 | 235206 | 250.0 | 243.8 | |
| 19 1,1-Dichloroethene | 96 | 3.099 | 3.099 | 0.001 | 95 | 773482 | 50.0 | 47.2 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.134 | 3.134 | 0.000 | 94 | 643805 | 50.0 | 47.1 | |
| 21 Acetone | 43 | 3.146 | 3.146 | 0.000 | 99 | 621320 | 100.0 | 100.7 | |
| 22 Iodomethane | 142 | 3.241 | 3.241 | 0.001 | 99 | 1439444 | 50.0 | 48.6 | |
| 24 Carbon disulfide | 76 | 3.312 | 3.312 | 0.000 | 100 | 2479135 | 50.0 | 49.7 | |
| 27 Methyl acetate | 43 | 3.430 | 3.430 | 0.000 | 99 | 1714912 | 100.0 | 98.6 | |
| 26 3-Chloro-1-propene | 76 | 3.442 | 3.442 | 0.000 | 87 | 699332 | 50.0 | 52.6 | |
| 28 Methylene Chloride | 84 | 3.572 | 3.572 | 0.000 | 96 | 990733 | 50.0 | 50.4 | |
| 29 2-Methyl-2-propanol | 59 | 3.667 | 3.666 | 0.001 | 97 | 1060227 | 500.0 | 492.0 | |
| 31 Acrylonitrile | 53 | 3.785 | 3.785 | 0.000 | 97 | 4193182 | 500.0 | 471.5 | |
| 32 Methyl tert-butyl ether | 73 | 3.809 | 3.808 | 0.001 | 98 | 2822621 | 50.0 | 48.7 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.809 | 3.808 | 0.001 | 78 | 946464 | 50.0 | 46.8 | |
| 33 Hexane | 86 | 4.057 | 4.057 | 0.000 | 93 | 196332 | 50.0 | 46.3 | |
| 35 Vinyl acetate | 43 | 4.199 | 4.199 | 0.000 | 97 | 1711187 | 50.0 | 47.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.211 | 4.211 | 0.000 | 97 | 2053468 | 50.0 | 48.0 | |
| 41 2-Butanone (MEK) | 43 | 4.696 | 4.696 | 0.000 | 98 | 915893 | 100.0 | 91.9 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.708 | 4.708 | 0.000 | 89 | 1064399 | 50.0 | 49.7 | |
| 39 2,2-Dichloropropane | 97 | 4.720 | 4.720 | 0.000 | 92 | 245317 | 50.0 | 46.9 | |
| 45 Chlorobromomethane | 128 | 4.921 | 4.921 | 0.000 | 94 | 475110 | 50.0 | 46.5 | |
| 46 Tetrahydrofuran | 42 | 4.933 | 4.933 | 0.000 | 95 | 592539 | 100.0 | 95.2 | |
| 47 Chloroform | 83 | 5.004 | 5.004 | 0.000 | 98 | 1778900 | 50.0 | 46.9 | |
| 48 1,1,1-Trichloroethane | 97 | 5.146 | 5.146 | 0.000 | 97 | 1562618 | 50.0 | 47.7 | |
| 49 Cyclohexane | 56 | 5.217 | 5.217 | 0.000 | 92 | 1971451 | 50.0 | 47.2 | |
| 50 1,1-Dichloropropene | 75 | 5.288 | 5.288 | 0.000 | 89 | 1335977 | 50.0 | 47.1 | |
| 51 Carbon tetrachloride | 117 | 5.288 | 5.288 | 0.000 | 87 | 1363176 | 50.0 | 48.7 | |
| 52 Isobutyl alcohol | 41 | 5.359 | 5.359 | 0.000 | 94 | 858161 | 1250.0 | 1167.4 | |
| 53 Benzene | 78 | 5.453 | 5.453 | 0.000 | 98 | 3741541 | 50.0 | 47.6 | |
| 54 1,2-Dichloroethane | 62 | 5.501 | 5.501 | 0.000 | 97 | 1662707 | 50.0 | 46.0 | |
| 56 n-Heptane | 100 | 5.690 | 5.690 | 0.000 | 96 | 188759 | 50.0 | 46.8 | |
| 58 Trichloroethene | 130 | 6.021 | 6.021 | 0.000 | 95 | 938245 | 50.0 | 46.7 | |
| 60 Methylcyclohexane | 83 | 6.234 | 6.234 | 0.000 | 97 | 1382592 | 50.0 | 46.5 | |
| 61 1,2-Dichloropropane | 63 | 6.246 | 6.246 | 0.000 | 96 | 1134074 | 50.0 | 47.8 | |
| 64 1,4-Dioxane | 88 | 6.305 | 6.305 | 0.000 | 96 | 175070 | 1000.0 | 984.5 | |
| 63 Dibromomethane | 93 | 6.329 | 6.329 | 0.000 | 96 | 595072 | 50.0 | 46.4 | |
| 65 Dichlorobromomethane | 83 | 6.471 | 6.471 | 0.000 | 98 | 1401947 | 50.0 | 46.5 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.708 | 6.708 | 0.000 | 93 | 1421628 | 100.0 | 98.0 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.862 | 6.861 | 0.001 | 90 | 1682826 | 50.0 | 48.0 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.980 | 6.980 | 0.000 | 98 | 2111332 | 100.0 | 95.2 | |
| 70 Toluene | 91 | 7.169 | 7.169 | 0.000 | 97 | 3988277 | 50.0 | 46.7 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.370 | 7.370 | 0.000 | 98 | 1548325 | 50.0 | 47.0 | |
| 72 Ethyl methacrylate | 69 | 7.406 | 7.406 | 0.000 | 94 | 1223653 | 50.0 | 47.3 | |
| 73 1,1,2-Trichloroethane | 97 | 7.548 | 7.548 | 0.000 | 96 | 798222 | 50.0 | 47.7 | |
| 74 Tetrachloroethene | 164 | 7.631 | 7.630 | 0.001 | 95 | 750410 | 50.0 | 46.9 | |
| 75 1,3-Dichloropropane | 76 | 7.702 | 7.701 | 0.001 | 96 | 1479742 | 50.0 | 47.8 | |
| 76 2-Hexanone | 43 | 7.737 | 7.737 | 0.000 | 97 | 1477655 | 100.0 | 94.9 | |
| 78 Chlorodibromomethane | 129 | 7.903 | 7.903 | 0.000 | 91 | 973166 | 50.0 | 48.3 | |
| 80 Ethylene Dibromide | 107 | 8.021 | 8.021 | 0.000 | 98 | 850492 | 50.0 | 48.5 | |
| 82 Chlorobenzene | 112 | 8.471 | 8.471 | 0.000 | 90 | 2666915 | 50.0 | 49.0 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.554 | 8.553 | 0.001 | 94 | 988545 | 50.0 | 48.4 | |
| 84 Ethylbenzene | 106 | 8.554 | 8.553 | 0.001 | 99 | 1446785 | 50.0 | 47.7 | |
| 85 m-Xylene & p-Xylene | 106 | 8.684 | 8.684 | 0.000 | 99 | 1804031 | 50.0 | 47.5 | |
| 86 o-Xylene | 106 | 9.051 | 9.050 | 0.001 | 98 | 1824406 | 50.0 | 48.0 | |
| 87 Styrene | 104 | 9.062 | 9.074 | -0.012 | 94 | 3155657 | 50.0 | 48.9 | |
| 88 Bromoform | 173 | 9.252 | 9.252 | 0.000 | 96 | 719186 | 50.0 | 50.5 | |
| 89 Isopropylbenzene | 105 | 9.406 | 9.405 | 0.001 | 98 | 4459029 | 50.0 | 46.7 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.701 | 9.701 | 0.000 | 96 | 1058827 | 50.0 | 47.6 | |
| 93 Bromobenzene | 156 | 9.725 | 9.725 | 0.000 | 95 | 1249589 | 50.0 | 49.7 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.737 | 9.737 | 0.000 | 85 | 448156 | 50.0 | 50.0 | |
| 94 1,2,3-Trichloropropane | 110 | 9.761 | 9.760 | 0.001 | 89 | 328286 | 50.0 | 48.7 | |
| 96 N-Propylbenzene | 120 | 9.808 | 9.808 | 0.000 | 99 | 1243686 | 50.0 | 49.2 | |
| 97 2-Chlorotoluene | 126 | 9.903 | 9.902 | 0.001 | 95 | 1101566 | 50.0 | 48.5 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.985 | 9.985 | 0.000 | 93 | 3954235 | 50.0 | 48.6 | |
| 99 4-Chlorotoluene | 126 | 10.021 | 10.021 | 0.000 | 99 | 1149414 | 50.0 | 48.1 | |
| 100 tert-Butylbenzene | 119 | 10.293 | 10.293 | 0.000 | 93 | 3141717 | 50.0 | 48.1 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.352 | 10.352 | 0.000 | 99 | 4106216 | 50.0 | 48.1 | |
| 103 sec-Butylbenzene | 105 | 10.518 | 10.518 | 0.000 | 96 | 4576398 | 50.0 | 47.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.636 | 10.636 | 0.000 | 96 | 2195872 | 50.0 | 47.6 | |
| 105 4-Isopropyltoluene | 119 | 10.672 | 10.672 | 0.000 | 96 | 3927856 | 50.0 | 48.1 | |
| 106 1,4-Dichlorobenzene | 146 | 10.743 | 10.743 | 0.001 | 91 | 2237929 | 50.0 | 47.5 | |
| 109 n-Butylbenzene | 91 | 11.074 | 11.074 | 0.000 | 98 | 3660826 | 50.0 | 48.0 | |
| 110 1,2-Dichlorobenzene | 146 | 11.098 | 11.097 | 0.001 | 95 | 2082118 | 50.0 | 47.5 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.879 | 11.890 | -0.011 | 81 | 227625 | 50.0 | 49.5 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.707 | 12.707 | 0.000 | 94 | 1506300 | 50.0 | 47.7 | |
| 114 Hexachlorobutadiene | 225 | 12.849 | 12.861 | -0.012 | 97 | 618022 | 50.0 | 47.0 | |
| 115 Naphthalene | 128 | 12.991 | 12.991 | 0.000 | 99 | 2875495 | 50.0 | 47.9 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.228 | 13.227 | 0.001 | 97 | 1275038 | 50.0 | 48.0 | |
| S 156 Total BTEX | 1 | | | | 0 | | 250.0 | 237.6 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 200.0 | 192.1 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 96.5 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 95.0 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 100.0 | 95.5 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: | 40.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 40.00 | Units: uL | |
| VMRGAS_00488 | Amount Added: | 40.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

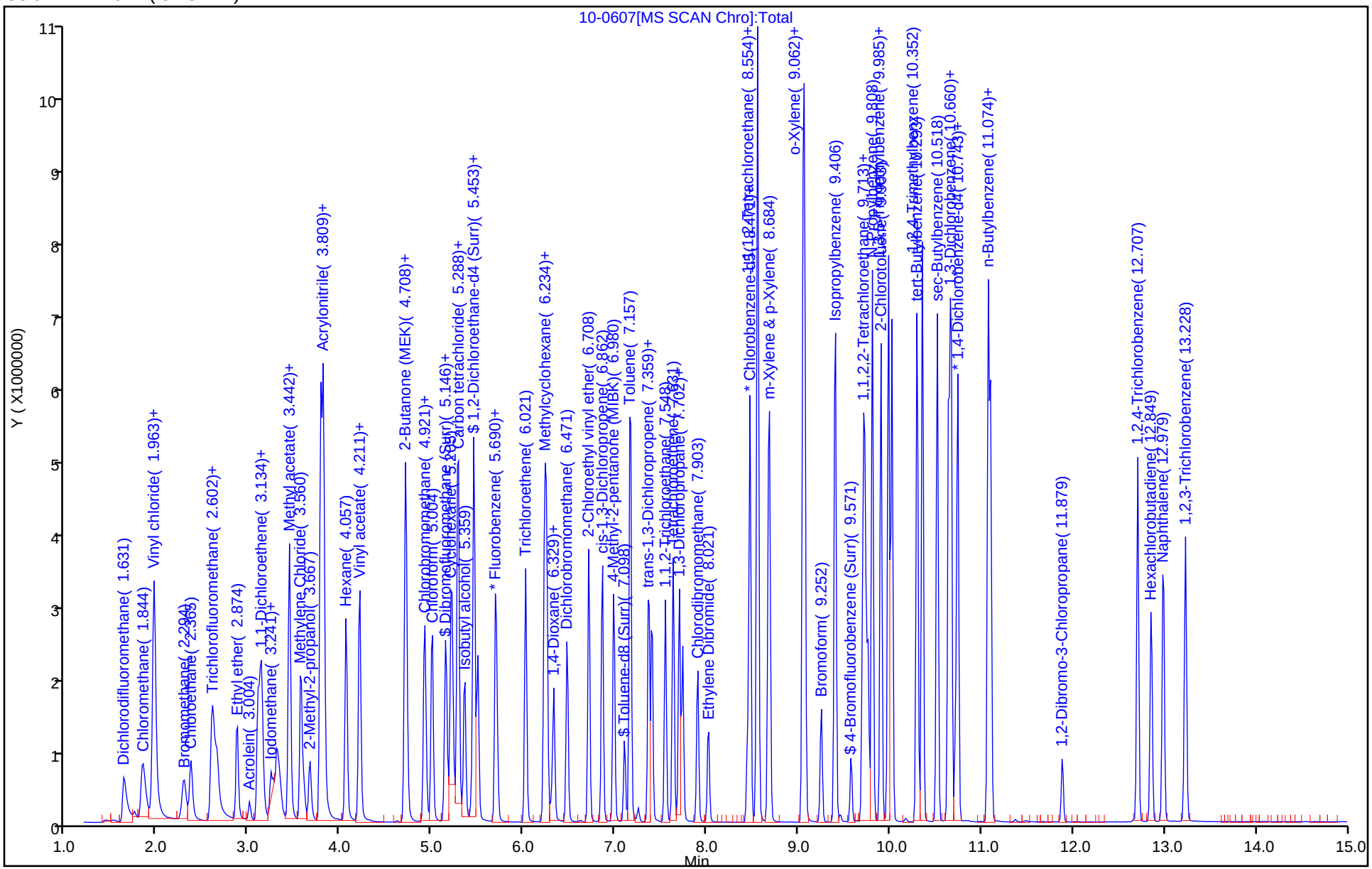
Report Date: 11-Aug-2023 13:58:27 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0607.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 18:11:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0608.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 10-Aug-2023 18:36:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-011
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 13:58:30 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.713 | 5.714 | -0.001 | 98 | 651776 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.446 | 8.447 | -0.001 | 90 | 512399 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.718 | 10.719 | -0.001 | 96 | 312482 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.133 | 5.134 | -0.001 | 93 | 165280 | 9.34 | 9.28 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.429 | 5.430 | -0.001 | 98 | 230403 | 9.34 | 9.09 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.097 | 7.098 | -0.001 | 95 | 647769 | 9.34 | 9.54 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.570 | 9.571 | -0.001 | 89 | 278684 | 9.34 | 9.35 | |
| 9 Dichlorodifluoromethane | 85 | 1.631 | 1.631 | 0.000 | 99 | 1638359 | 62.5 | 58.6 | |
| 10 Chloromethane | 50 | 1.832 | 1.832 | 0.000 | 99 | 2398617 | 62.5 | 62.0 | |
| 11 Vinyl chloride | 62 | 1.950 | 1.951 | -0.001 | 99 | 1974478 | 62.5 | 58.7 | |
| 12 Butadiene | 54 | 1.962 | 1.963 | -0.001 | 88 | 2222136 | 62.5 | 57.8 | |
| 13 Bromomethane | 94 | 2.281 | 2.294 | -0.013 | 92 | 956251 | 62.5 | 59.6 | |
| 14 Chloroethane | 64 | 2.364 | 2.365 | -0.001 | 98 | 1162868 | 62.5 | 60.1 | |
| 16 Trichlorofluoromethane | 101 | 2.589 | 2.590 | -0.001 | 100 | 1867497 | 62.5 | 58.4 | |
| 15 Dichlorofluoromethane | 67 | 2.601 | 2.602 | -0.001 | 99 | 2292164 | 62.5 | 58.6 | |
| 17 Ethyl ether | 59 | 2.873 | 2.874 | -0.001 | 97 | 1140315 | 62.5 | 60.7 | |
| 18 Acrolein | 56 | 3.003 | 3.004 | -0.001 | 99 | 297156 | 312.5 | 309.6 | |
| 19 1,1-Dichloroethene | 96 | 3.098 | 3.099 | 0.000 | 93 | 972946 | 62.5 | 59.7 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.133 | 3.134 | -0.001 | 96 | 816903 | 62.5 | 60.1 | |
| 21 Acetone | 43 | 3.145 | 3.146 | -0.001 | 100 | 764334 | 125.0 | 125.1 | |
| 22 Iodomethane | 142 | 3.240 | 3.241 | 0.000 | 99 | 1799639 | 62.5 | 61.0 | |
| 24 Carbon disulfide | 76 | 3.311 | 3.312 | -0.001 | 99 | 3107935 | 62.5 | 62.7 | |
| 27 Methyl acetate | 43 | 3.429 | 3.430 | -0.001 | 99 | 2134265 | 125.0 | 123.4 | |
| 26 3-Chloro-1-propene | 76 | 3.441 | 3.442 | -0.001 | 88 | 892951 | 62.5 | 67.6 | |
| 28 Methylene Chloride | 84 | 3.571 | 3.572 | -0.001 | 96 | 1242370 | 62.5 | 63.7 | |
| 29 2-Methyl-2-propanol | 59 | 3.666 | 3.666 | 0.000 | 99 | 1319271 | 625.0 | 615.4 | |
| 31 Acrylonitrile | 53 | 3.784 | 3.785 | -0.001 | 97 | 5237753 | 625.0 | 592.0 | |
| 32 Methyl tert-butyl ether | 73 | 3.808 | 3.808 | 0.000 | 98 | 3544282 | 62.5 | 61.4 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.808 | 3.808 | 0.000 | 78 | 1183390 | 62.5 | 58.8 | |
| 33 Hexane | 86 | 4.056 | 4.057 | -0.001 | 93 | 243207 | 62.5 | 57.6 | |
| 35 Vinyl acetate | 43 | 4.210 | 4.199 | 0.011 | 97 | 2108746 | 62.5 | 58.8 | |
| 34 1,1-Dichloroethane | 63 | 4.210 | 4.211 | -0.001 | 98 | 2598267 | 62.5 | 61.0 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 41 2-Butanone (MEK) | 43 | 4.695 | 4.696 | -0.001 | 98 | 1148513 | 125.0 | 115.8 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.707 | 4.708 | -0.001 | 89 | 1318237 | 62.5 | 61.9 | |
| 39 2,2-Dichloropropane | 97 | 4.719 | 4.720 | -0.001 | 93 | 293331 | 62.5 | 56.3 | |
| 45 Chlorobromomethane | 128 | 4.920 | 4.921 | -0.001 | 92 | 598570 | 62.5 | 58.9 | |
| 46 Tetrahydrofuran | 42 | 4.932 | 4.933 | -0.001 | 94 | 760874 | 125.0 | 122.9 | |
| 47 Chloroform | 83 | 5.003 | 5.004 | -0.001 | 98 | 2243435 | 62.5 | 59.4 | |
| 48 1,1,1-Trichloroethane | 97 | 5.145 | 5.146 | -0.001 | 97 | 1952859 | 62.5 | 59.9 | |
| 49 Cyclohexane | 56 | 5.216 | 5.217 | -0.001 | 92 | 2485545 | 62.5 | 59.8 | |
| 50 1,1-Dichloropropene | 75 | 5.287 | 5.288 | -0.001 | 89 | 1702748 | 62.5 | 60.4 | |
| 51 Carbon tetrachloride | 117 | 5.287 | 5.288 | -0.001 | 86 | 1709576 | 62.5 | 61.3 | |
| 52 Isobutyl alcohol | 41 | 5.358 | 5.359 | -0.001 | 94 | 1056072 | 1562.5 | 1460.9 | |
| 53 Benzene | 78 | 5.453 | 5.453 | 0.000 | 98 | 4707687 | 62.5 | 60.2 | |
| 54 1,2-Dichloroethane | 62 | 5.500 | 5.501 | -0.001 | 97 | 2104472 | 62.5 | 58.6 | |
| 56 n-Heptane | 100 | 5.689 | 5.690 | -0.001 | 95 | 238050 | 62.5 | 59.3 | |
| 58 Trichloroethene | 130 | 6.021 | 6.021 | 0.000 | 95 | 1207263 | 62.5 | 60.3 | |
| 60 Methylcyclohexane | 83 | 6.234 | 6.234 | 0.000 | 97 | 1743335 | 62.5 | 59.0 | |
| 61 1,2-Dichloropropane | 63 | 6.245 | 6.246 | -0.001 | 95 | 1435000 | 62.5 | 60.8 | |
| 64 1,4-Dioxane | 88 | 6.305 | 6.305 | 0.000 | 96 | 211864 | 1250.0 | 1197.6 | |
| 63 Dibromomethane | 93 | 6.328 | 6.329 | -0.001 | 96 | 752842 | 62.5 | 59.1 | |
| 65 Dichlorobromomethane | 83 | 6.470 | 6.471 | -0.001 | 98 | 1757438 | 62.5 | 58.5 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.707 | 6.708 | -0.001 | 93 | 1765992 | 125.0 | 122.4 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.861 | 6.861 | 0.000 | 91 | 2110334 | 62.5 | 60.5 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.979 | 6.980 | -0.001 | 98 | 2623390 | 125.0 | 118.8 | |
| 70 Toluene | 91 | 7.168 | 7.169 | -0.001 | 97 | 4964141 | 62.5 | 59.1 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.370 | 7.370 | 0.000 | 98 | 1939660 | 62.5 | 59.9 | |
| 72 Ethyl methacrylate | 69 | 7.405 | 7.406 | -0.001 | 94 | 1500160 | 62.5 | 59.0 | |
| 73 1,1,2-Trichloroethane | 97 | 7.547 | 7.548 | -0.001 | 96 | 983771 | 62.5 | 59.8 | |
| 74 Tetrachloroethene | 164 | 7.630 | 7.630 | 0.000 | 94 | 947565 | 62.5 | 60.2 | |
| 75 1,3-Dichloropropane | 76 | 7.701 | 7.701 | 0.000 | 97 | 1843655 | 62.5 | 60.6 | |
| 76 2-Hexanone | 43 | 7.736 | 7.737 | -0.001 | 95 | 1777704 | 125.0 | 116.1 | |
| 78 Chlorodibromomethane | 129 | 7.902 | 7.903 | -0.001 | 90 | 1204482 | 62.5 | 60.8 | |
| 80 Ethylene Dibromide | 107 | 8.020 | 8.021 | -0.001 | 98 | 1043213 | 62.5 | 60.5 | |
| 82 Chlorobenzene | 112 | 8.470 | 8.471 | -0.001 | 91 | 3303350 | 62.5 | 61.7 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.553 | 8.553 | 0.000 | 94 | 1233496 | 62.5 | 61.4 | |
| 84 Ethylbenzene | 106 | 8.553 | 8.553 | 0.000 | 99 | 1794936 | 62.5 | 60.2 | |
| 85 m-Xylene & p-Xylene | 106 | 8.683 | 8.684 | -0.001 | 99 | 2254489 | 62.5 | 60.3 | |
| 86 o-Xylene | 106 | 9.050 | 9.050 | 0.000 | 99 | 2265421 | 62.5 | 60.6 | |
| 87 Styrene | 104 | 9.073 | 9.074 | -0.001 | 94 | 3860790 | 62.5 | 60.8 | |
| 88 Bromoform | 173 | 9.251 | 9.252 | -0.001 | 96 | 890567 | 62.5 | 63.5 | |
| 89 Isopropylbenzene | 105 | 9.405 | 9.405 | 0.000 | 98 | 5659722 | 62.5 | 60.3 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.701 | 9.701 | 0.000 | 96 | 1307321 | 62.5 | 57.4 | |
| 93 Bromobenzene | 156 | 9.724 | 9.725 | -0.001 | 96 | 1544352 | 62.5 | 60.0 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.736 | 9.737 | -0.001 | 83 | 555487 | 62.5 | 60.5 | |
| 94 1,2,3-Trichloropropane | 110 | 9.760 | 9.760 | 0.000 | 88 | 395856 | 62.5 | 57.4 | |
| 96 N-Propylbenzene | 120 | 9.807 | 9.808 | -0.001 | 99 | 1578339 | 62.5 | 61.0 | |
| 97 2-Chlorotoluene | 126 | 9.902 | 9.902 | 0.000 | 95 | 1393342 | 62.5 | 59.9 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.985 | 9.985 | 0.000 | 93 | 4907572 | 62.5 | 58.9 | |
| 99 4-Chlorotoluene | 126 | 10.020 | 10.021 | -0.001 | 99 | 1463691 | 62.5 | 59.8 | |
| 100 tert-Butylbenzene | 119 | 10.292 | 10.293 | -0.001 | 93 | 4046078 | 62.5 | 60.5 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.351 | 10.352 | -0.001 | 99 | 5131573 | 62.5 | 58.8 | |
| 103 sec-Butylbenzene | 105 | 10.517 | 10.518 | -0.001 | 96 | 5845874 | 62.5 | 59.5 | |
| 104 1,3-Dichlorobenzene | 146 | 10.647 | 10.636 | 0.011 | 98 | 2775406 | 62.5 | 58.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 105 4-Isopropyltoluene | 119 | 10.671 | 10.672 | -0.001 | 96 | 4975236 | 62.5 | 59.5 | |
| 106 1,4-Dichlorobenzene | 146 | 10.742 | 10.743 | 0.000 | 91 | 2824340 | 62.5 | 58.5 | |
| 109 n-Butylbenzene | 91 | 11.073 | 11.074 | -0.001 | 98 | 4691055 | 62.5 | 60.0 | |
| 110 1,2-Dichlorobenzene | 146 | 11.097 | 11.097 | 0.000 | 94 | 2649644 | 62.5 | 59.0 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.890 | 11.890 | 0.000 | 91 | 293902 | 62.5 | 62.4 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.706 | 12.707 | -0.001 | 94 | 1930198 | 62.5 | 59.8 | |
| 114 Hexachlorobutadiene | 225 | 12.860 | 12.861 | -0.001 | 96 | 823414 | 62.5 | 61.1 | |
| 115 Naphthalene | 128 | 12.990 | 12.991 | -0.001 | 99 | 3640159 | 62.5 | 59.2 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.227 | 13.227 | 0.000 | 97 | 1631169 | 62.5 | 60.0 | |
| S 156 Total BTEX | 1 | | | | 0 | | 312.5 | 300.6 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 250.0 | 242.3 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 120.7 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 120.4 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 125.0 | 121.0 | |

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00543 | Amount Added: 50.00 | Units: uL | | |
| VMAROLISTDW_00496 | Amount Added: 50.00 | Units: uL | | |
| VMRGAS_00488 | Amount Added: 50.00 | Units: uL | | |
| vm50ss_stk_00094 | Amount Added: 0.93 | Units: uL | Run Reagent | |
| vm50is_stk_A_00019 | Amount Added: 1.00 | Units: uL | Run Reagent | |
| vm40ml_vials_00024 | Amount Added: 0.00 | Units: | Run Reagent | |
| vmDist_H2o_00239 | Amount Added: 0.00 | Units: | Run Reagent | |

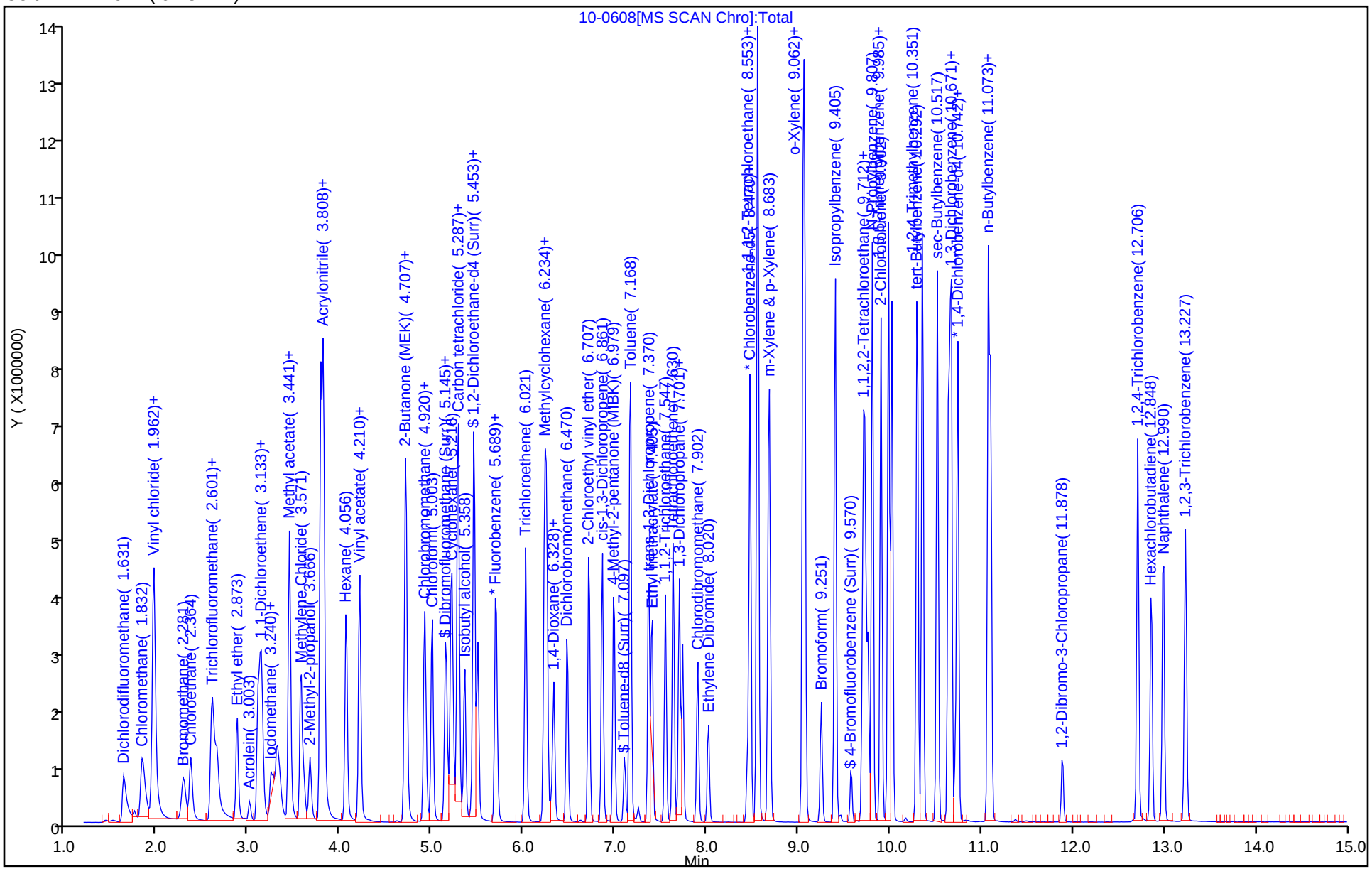
Report Date: 11-Aug-2023 13:58:31 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0608.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 18:36:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ic | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



## Calibration / Dichlorodifluoromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

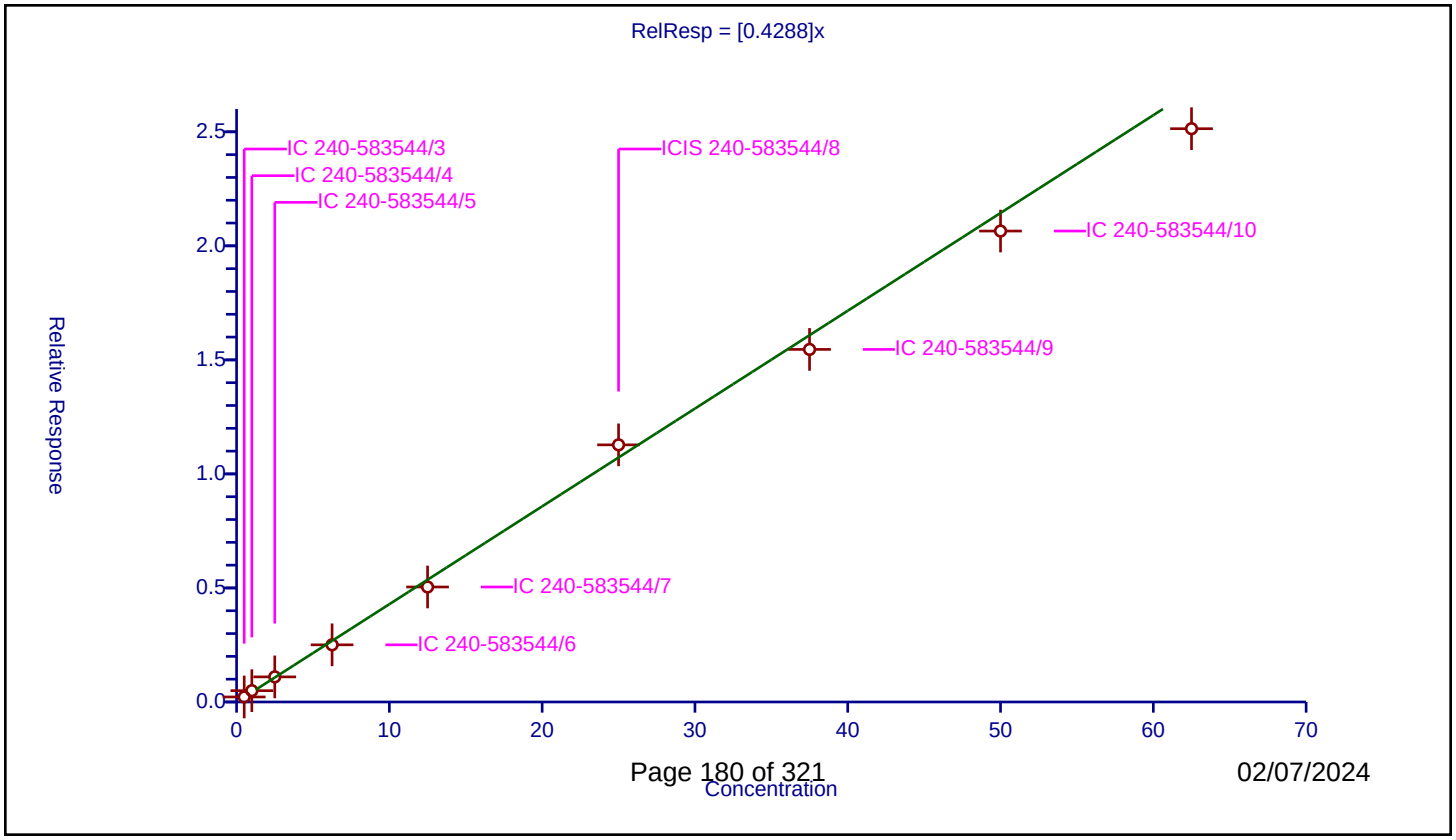
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4288 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 883000 |
| **Relative Standard Error:** | 7.3 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.219997 | 10.0 | 672601.0 | 0.439993 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.496044 | 10.0 | 642201.0 | 0.496044 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.101269 | 10.0 | 641914.0 | 0.440508 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.506719 | 10.0 | 639577.0 | 0.401075 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.042845 | 10.0 | 646871.0 | 0.403428 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 11.27406 | 10.0 | 647489.0 | 0.450962 | Y |
| 7 | IC 240-583544/9 | 37.5 | 15.459126 | 10.0 | 663718.0 | 0.412243 | Y |
| 8 | IC 240-583544/10 | 50.0 | 20.649156 | 10.0 | 655128.0 | 0.412983 | Y |
| 9 | IC 240-583544/11 | 62.5 | 25.136841 | 10.0 | 651776.0 | 0.402189 | Y |



## Calibration / Chloromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

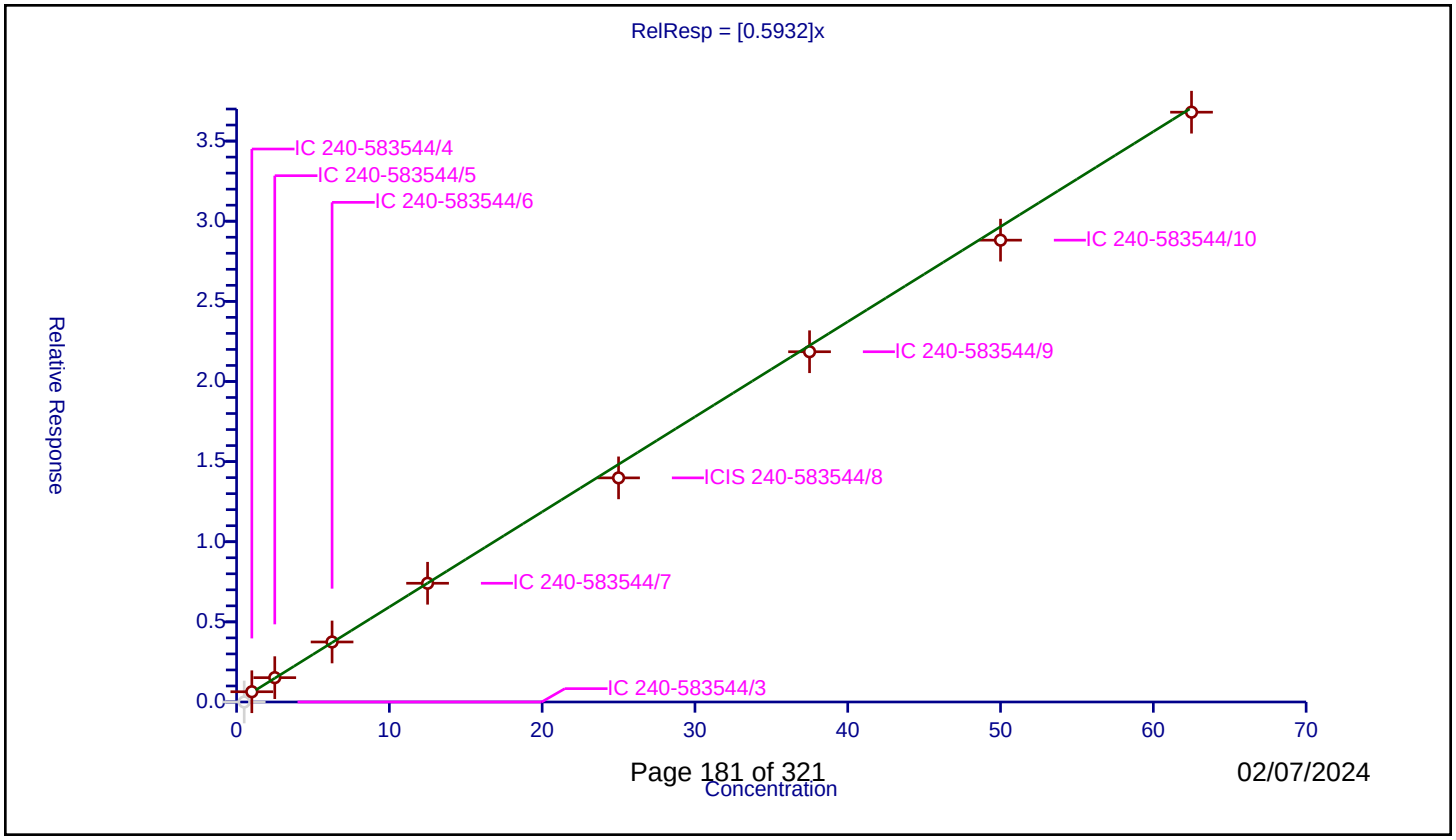
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5932 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1340000 |
| **Relative Standard Error:** | 4.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 1.0 | 0.639239 | 10.0 | 642201.0 | 0.639239 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.517696 | 10.0 | 641914.0 | 0.607078 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.744225 | 10.0 | 639577.0 | 0.599076 | Y |
| 5 | IC 240-583544/7 | 12.5 | 7.407999 | 10.0 | 646871.0 | 0.59264 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 13.984423 | 10.0 | 647489.0 | 0.559377 | Y |
| 7 | IC 240-583544/9 | 37.5 | 21.855396 | 10.0 | 663718.0 | 0.582811 | Y |
| 8 | IC 240-583544/10 | 50.0 | 28.816766 | 10.0 | 655128.0 | 0.576335 | Y |
| 9 | IC 240-583544/11 | 62.5 | 36.801248 | 10.0 | 651776.0 | 0.58882 | Y |



## Calibration / Vinyl chloride

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

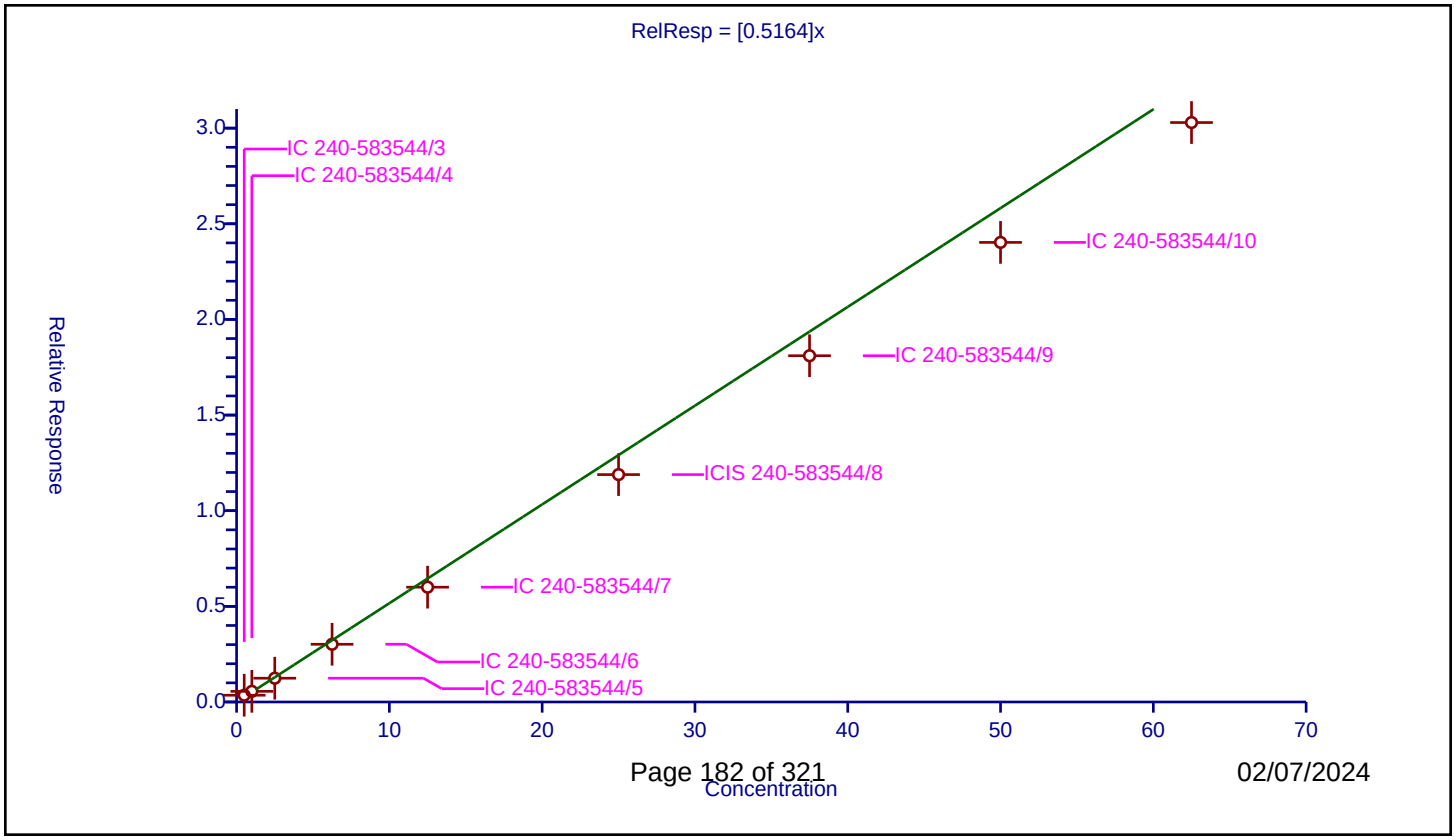
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5164 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1040000 |
| **Relative Standard Error:** | 14.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.967 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.353865 | 10.0 | 672601.0 | 0.70773 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.556352 | 10.0 | 642201.0 | 0.556352 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.242145 | 10.0 | 641914.0 | 0.496858 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.017182 | 10.0 | 639577.0 | 0.482749 | Y |
| 5 | IC 240-583544/7 | 12.5 | 6.002248 | 10.0 | 646871.0 | 0.48018 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 11.88865 | 10.0 | 647489.0 | 0.475546 | Y |
| 7 | IC 240-583544/9 | 37.5 | 18.102055 | 10.0 | 663718.0 | 0.482721 | Y |
| 8 | IC 240-583544/10 | 50.0 | 24.026679 | 10.0 | 655128.0 | 0.480534 | Y |
| 9 | IC 240-583544/11 | 62.5 | 30.293813 | 10.0 | 651776.0 | 0.484701 | Y |



## Calibration / Butadiene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

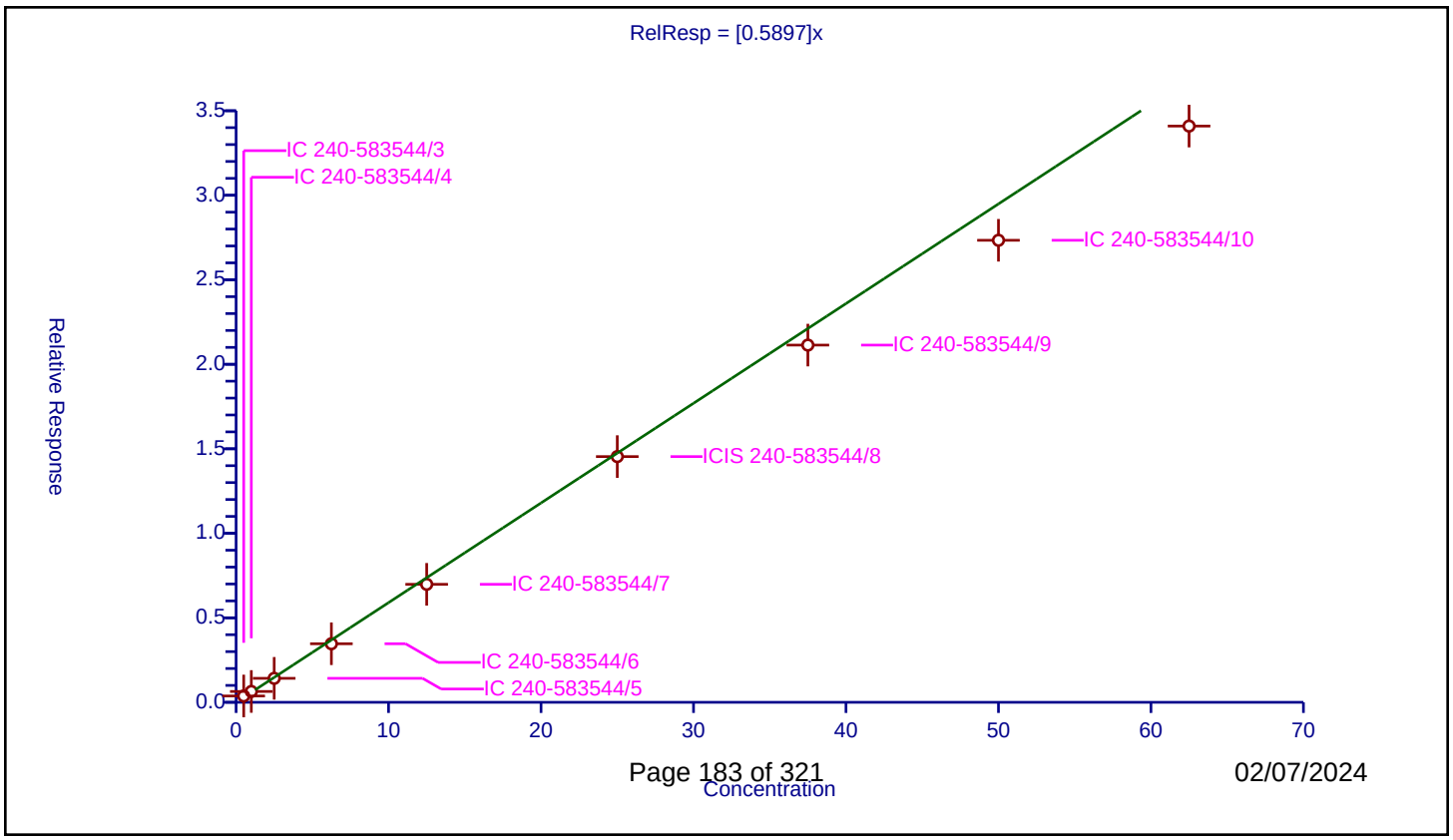
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5897 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1190000 |
| **Relative Standard Error:** | 11.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.37407 | 10.0 | 672601.0 | 0.74814 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.641964 | 10.0 | 642201.0 | 0.641964 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.418461 | 10.0 | 641914.0 | 0.567384 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.465087 | 10.0 | 639577.0 | 0.554414 | Y |
| 5 | IC 240-583544/7 | 12.5 | 6.981299 | 10.0 | 646871.0 | 0.558504 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 14.537807 | 10.0 | 647489.0 | 0.581512 | Y |
| 7 | IC 240-583544/9 | 37.5 | 21.134382 | 10.0 | 663718.0 | 0.563584 | Y |
| 8 | IC 240-583544/10 | 50.0 | 27.335757 | 10.0 | 655128.0 | 0.546715 | Y |
| 9 | IC 240-583544/11 | 62.5 | 34.093554 | 10.0 | 651776.0 | 0.545497 | Y |



## Calibration / Bromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

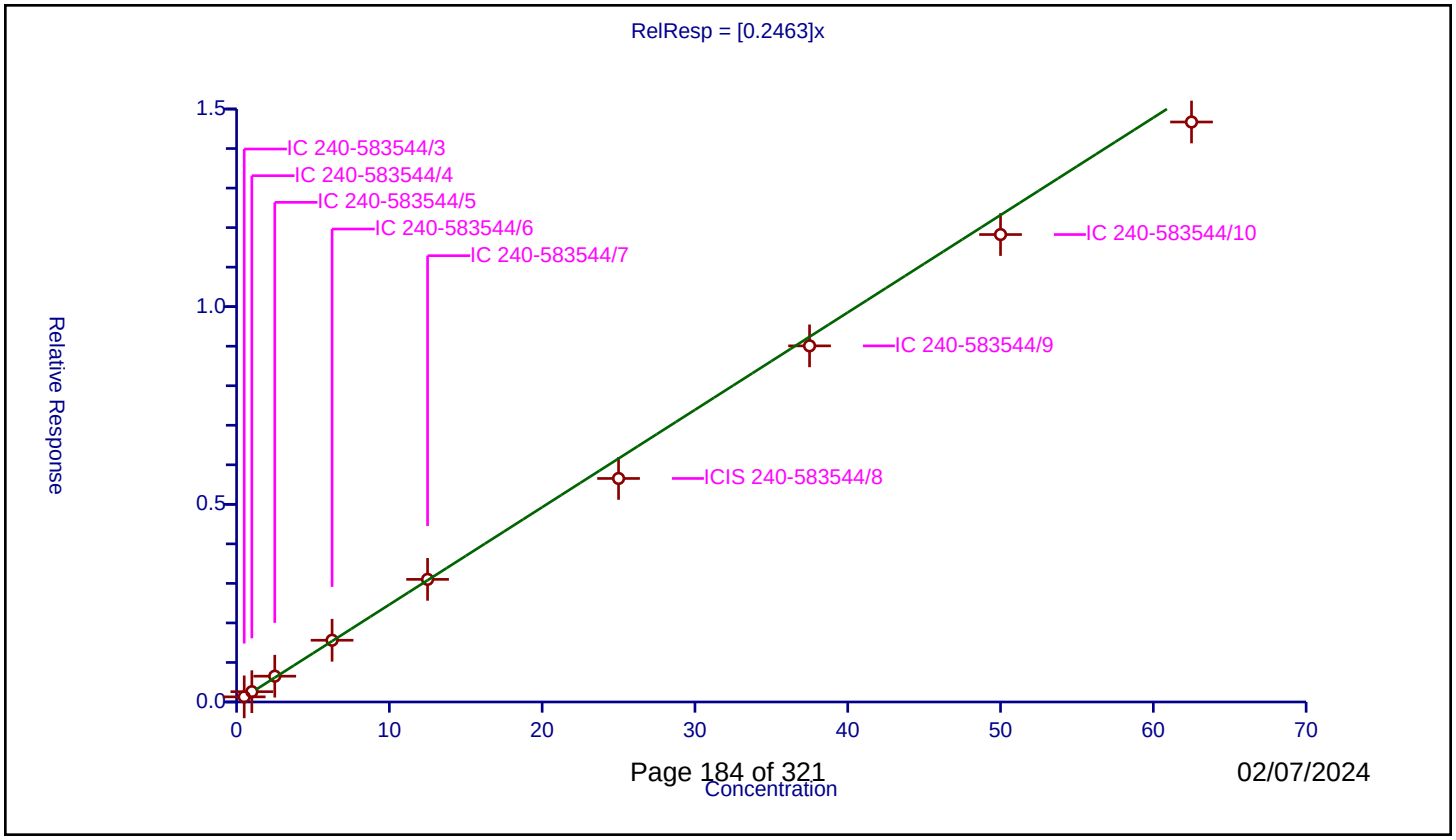
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2463 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 507000 |
| **Relative Standard Error:** | 5.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.129839 | 10.0 | 672601.0 | 0.259678 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.260682 | 10.0 | 642201.0 | 0.260682 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.652439 | 10.0 | 641914.0 | 0.260976 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.562001 | 10.0 | 639577.0 | 0.24992 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.101886 | 10.0 | 646871.0 | 0.248151 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 5.654876 | 10.0 | 647489.0 | 0.226195 | Y |
| 7 | IC 240-583544/9 | 37.5 | 9.008555 | 10.0 | 663718.0 | 0.240228 | Y |
| 8 | IC 240-583544/10 | 50.0 | 11.82488 | 10.0 | 655128.0 | 0.236498 | Y |
| 9 | IC 240-583544/11 | 62.5 | 14.671467 | 10.0 | 651776.0 | 0.234743 | Y |



## Calibration / Chloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

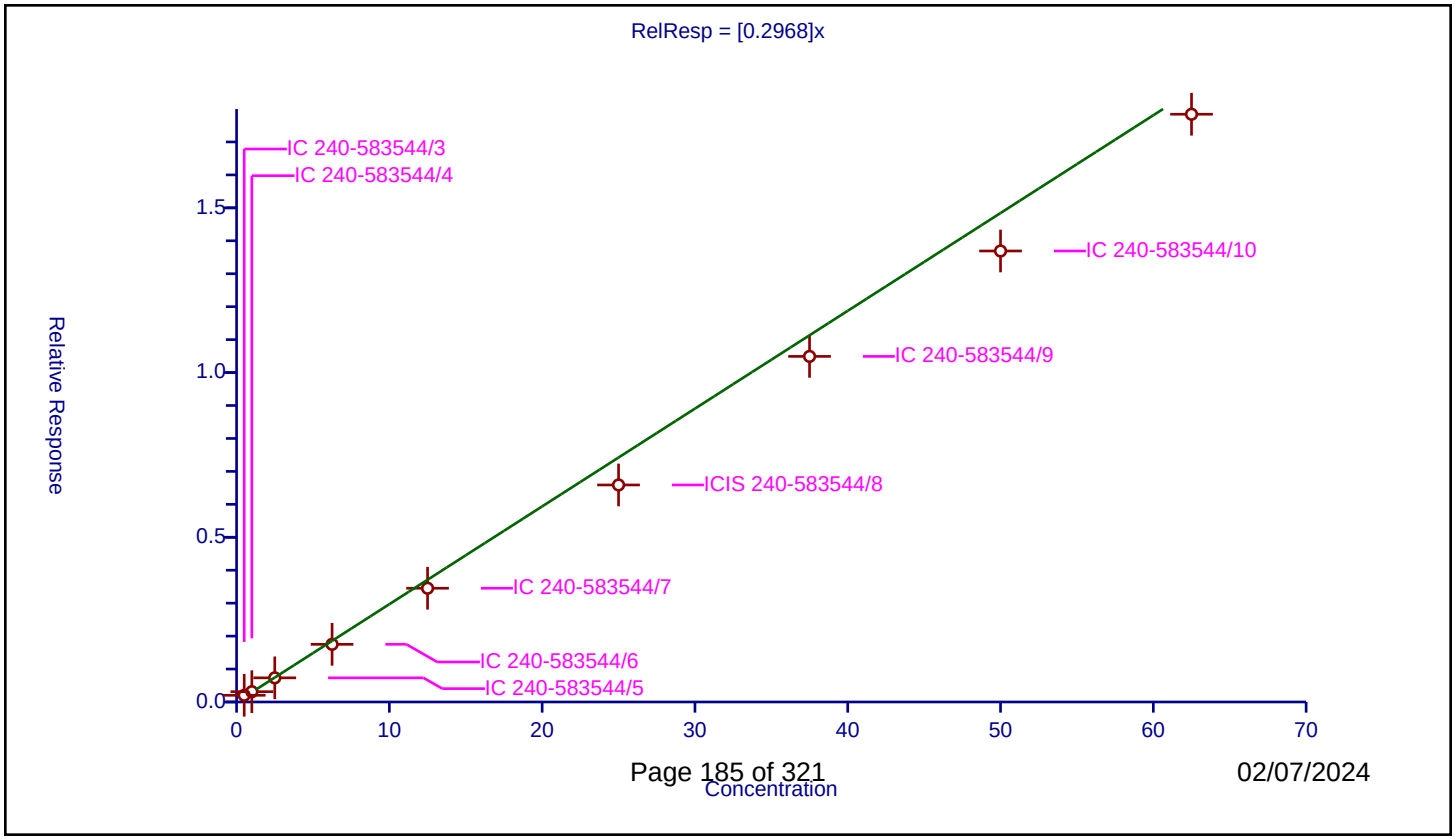
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2968 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 601000 |
| **Relative Standard Error:** | 14.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.967 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.203419 | 10.0 | 672601.0 | 0.406839 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.312737 | 10.0 | 642201.0 | 0.312737 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.732933 | 10.0 | 641914.0 | 0.293173 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.750626 | 10.0 | 639577.0 | 0.2801 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.452806 | 10.0 | 646871.0 | 0.276224 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 6.587695 | 10.0 | 647489.0 | 0.263508 | Y |
| 7 | IC 240-583544/9 | 37.5 | 10.490464 | 10.0 | 663718.0 | 0.279746 | Y |
| 8 | IC 240-583544/10 | 50.0 | 13.690348 | 10.0 | 655128.0 | 0.273807 | Y |
| 9 | IC 240-583544/11 | 62.5 | 17.841528 | 10.0 | 651776.0 | 0.285464 | Y |



## Calibration / Trichlorofluoromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

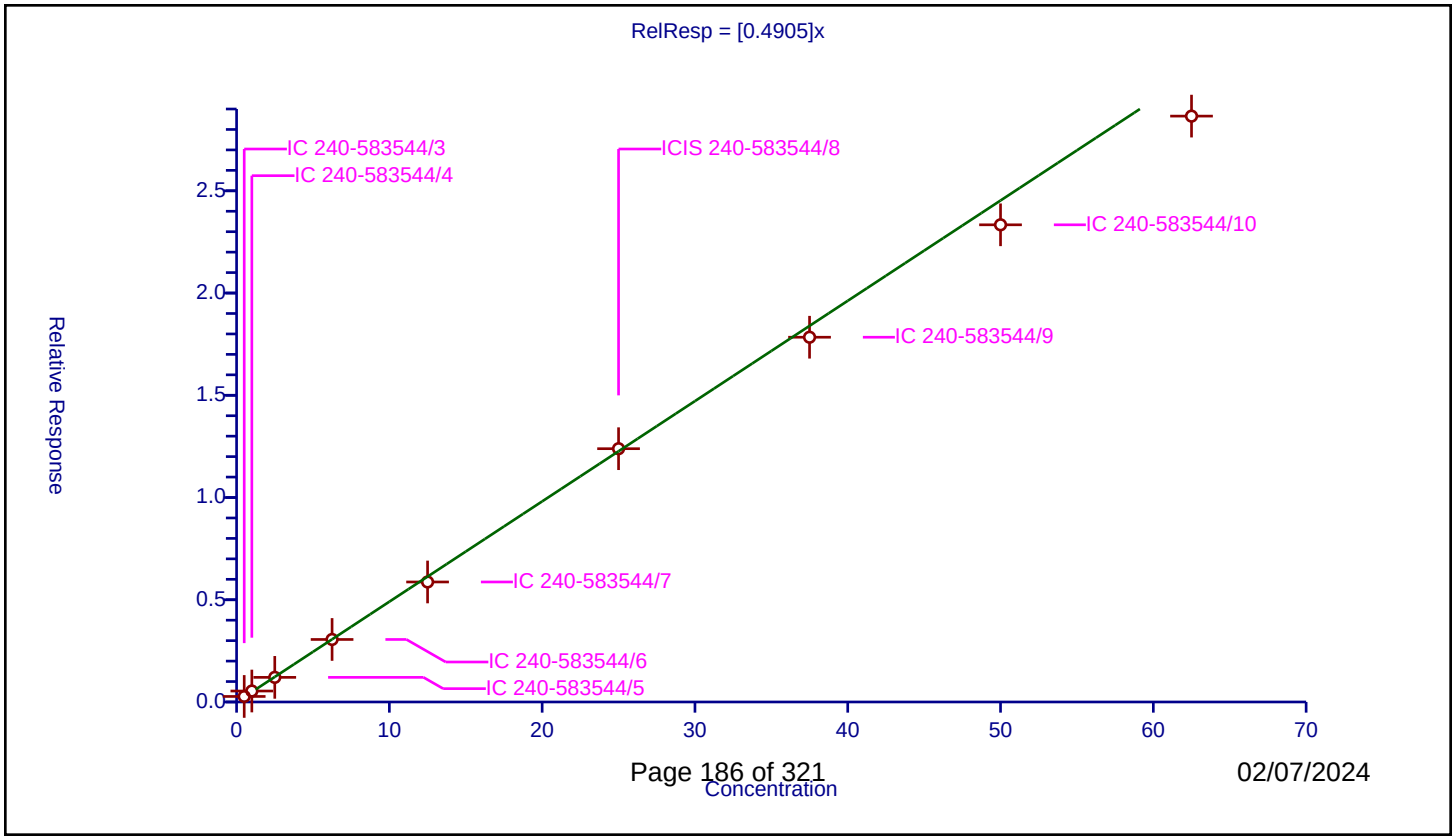
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4905 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1000000 |
| **Relative Standard Error:** | 6.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.270562 | 10.0 | 672601.0 | 0.541123 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.536343 | 10.0 | 642201.0 | 0.536343 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.204819 | 10.0 | 641914.0 | 0.481927 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.057849 | 10.0 | 639577.0 | 0.489256 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.869764 | 10.0 | 646871.0 | 0.469581 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 12.387994 | 10.0 | 647489.0 | 0.49552 | Y |
| 7 | IC 240-583544/9 | 37.5 | 17.839293 | 10.0 | 663718.0 | 0.475714 | Y |
| 8 | IC 240-583544/10 | 50.0 | 23.336798 | 10.0 | 655128.0 | 0.466736 | Y |
| 9 | IC 240-583544/11 | 62.5 | 28.652436 | 10.0 | 651776.0 | 0.458439 | Y |



## Calibration / Dichlorofluoromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

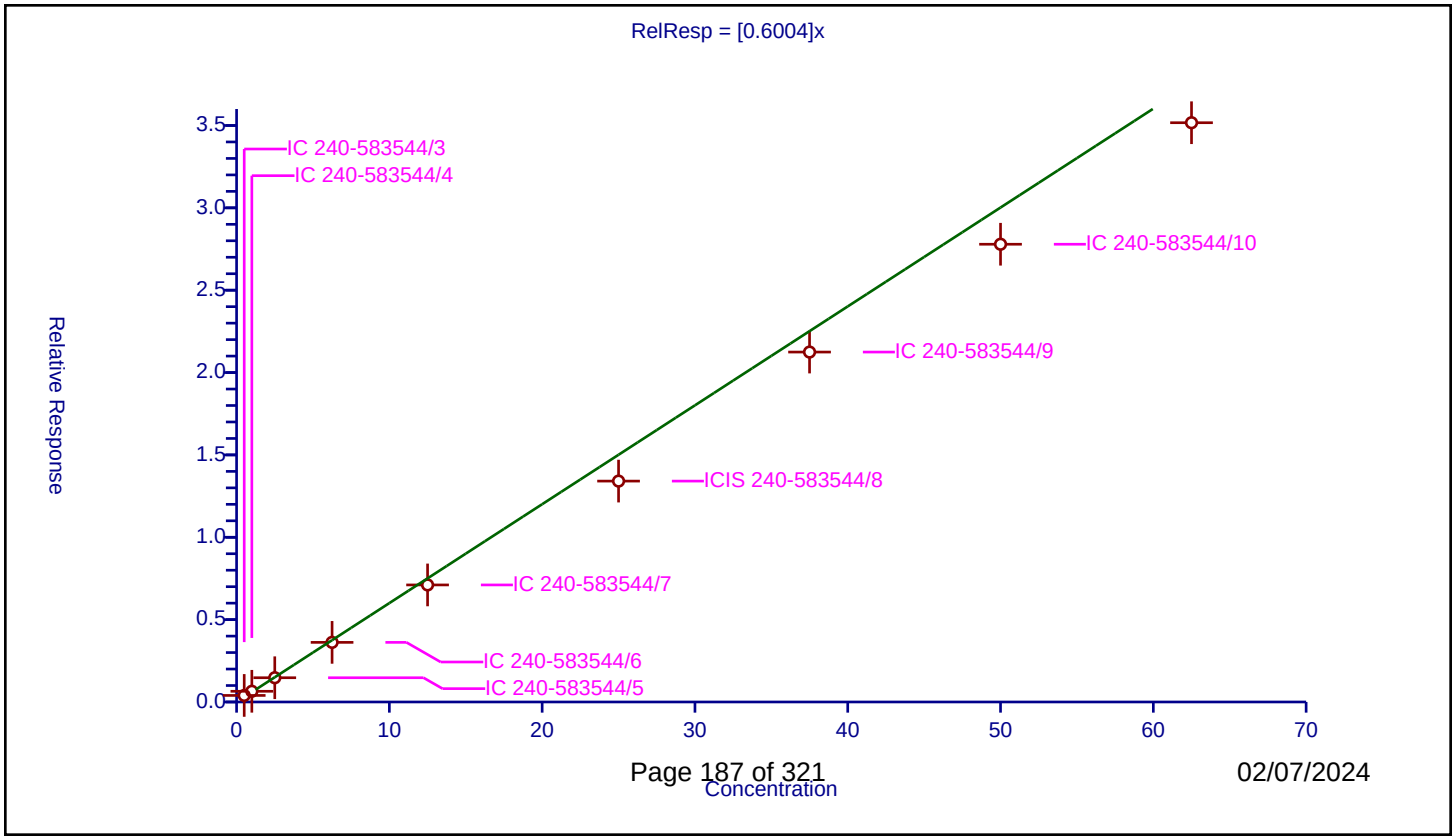
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6004 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1200000 |
| **Relative Standard Error:** | 13.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.974 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.397442 | 10.0 | 672601.0 | 0.794884 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.650061 | 10.0 | 642201.0 | 0.650061 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.472767 | 10.0 | 641914.0 | 0.589107 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.619627 | 10.0 | 639577.0 | 0.57914 | Y |
| 5 | IC 240-583544/7 | 12.5 | 7.107151 | 10.0 | 646871.0 | 0.568572 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 13.411363 | 10.0 | 647489.0 | 0.536455 | Y |
| 7 | IC 240-583544/9 | 37.5 | 21.245122 | 10.0 | 663718.0 | 0.566537 | Y |
| 8 | IC 240-583544/10 | 50.0 | 27.790783 | 10.0 | 655128.0 | 0.555816 | Y |
| 9 | IC 240-583544/11 | 62.5 | 35.167972 | 10.0 | 651776.0 | 0.562688 | Y |



## Calibration / Ethyl ether

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

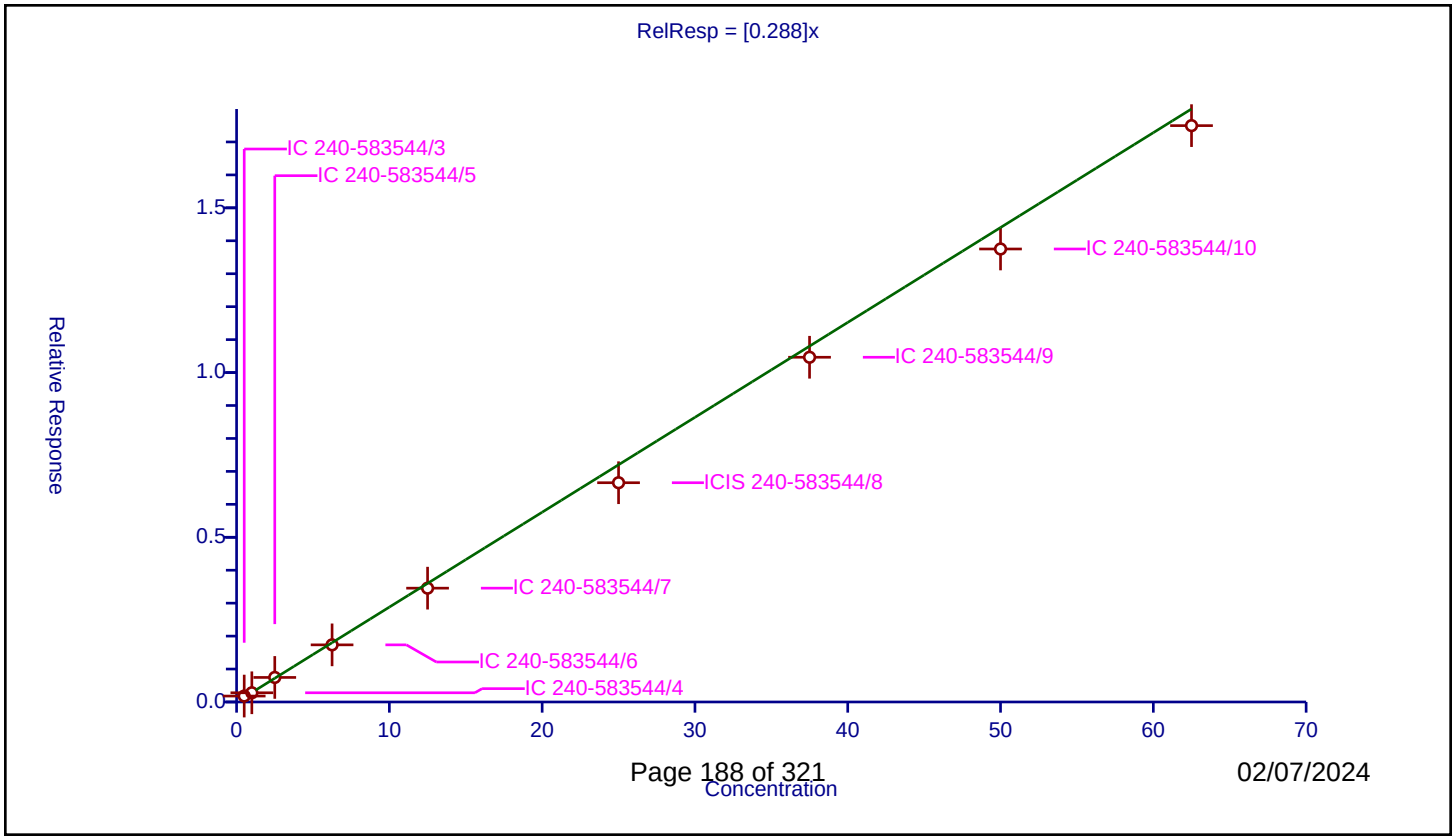
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.288 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 596000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.180122 | 10.0 | 672601.0 | 0.360243 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.279959 | 10.0 | 642201.0 | 0.279959 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.744835 | 10.0 | 641914.0 | 0.297934 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.734318 | 10.0 | 639577.0 | 0.277491 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.455558 | 10.0 | 646871.0 | 0.276445 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 6.656345 | 10.0 | 647489.0 | 0.266254 | Y |
| 7 | IC 240-583544/9 | 37.5 | 10.464731 | 10.0 | 663718.0 | 0.279059 | Y |
| 8 | IC 240-583544/10 | 50.0 | 13.750962 | 10.0 | 655128.0 | 0.275019 | Y |
| 9 | IC 240-583544/11 | 62.5 | 17.495505 | 10.0 | 651776.0 | 0.279928 | Y |



## Calibration / Acrolein

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

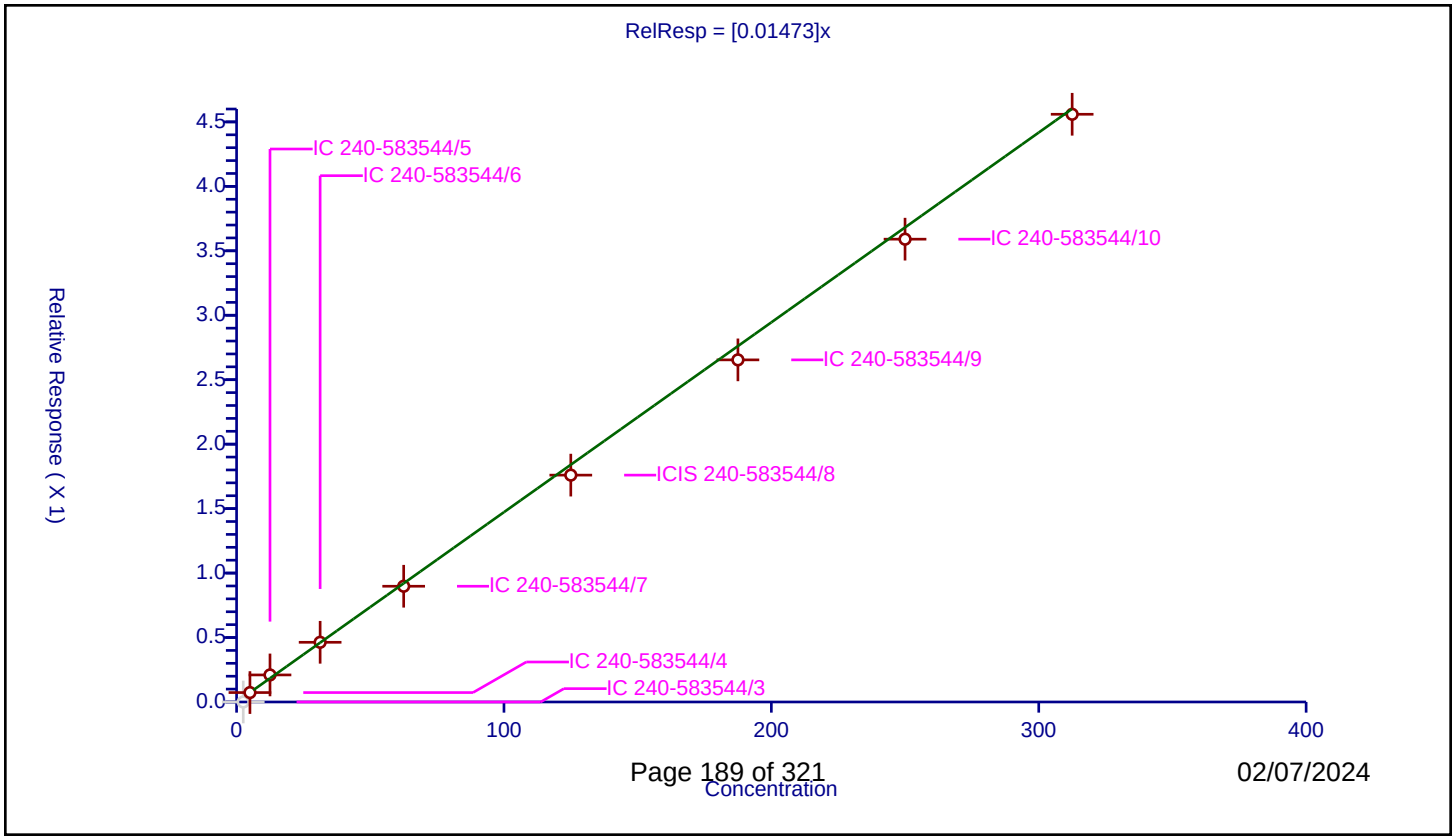
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.01473 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 166000 |
| **Relative Standard Error:** | 5.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 2.5 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 5.0 | 0.073217 | 10.0 | 642201.0 | 0.014643 | Y |
| 3 | IC 240-583544/5 | 12.5 | 0.209826 | 10.0 | 641914.0 | 0.016786 | Y |
| 4 | IC 240-583544/6 | 31.25 | 0.463165 | 10.0 | 639577.0 | 0.014821 | Y |
| 5 | IC 240-583544/7 | 62.5 | 0.897861 | 10.0 | 646871.0 | 0.014366 | Y |
| 6 | ICIS 240-583544/8 | 125.0 | 1.759937 | 10.0 | 647489.0 | 0.014079 | Y |
| 7 | IC 240-583544/9 | 187.5 | 2.654019 | 10.0 | 663718.0 | 0.014155 | Y |
| 8 | IC 240-583544/10 | 250.0 | 3.59023 | 10.0 | 655128.0 | 0.014361 | Y |
| 9 | IC 240-583544/11 | 312.5 | 4.559174 | 10.0 | 651776.0 | 0.014589 | Y |



## Calibration / 1,1-Dichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

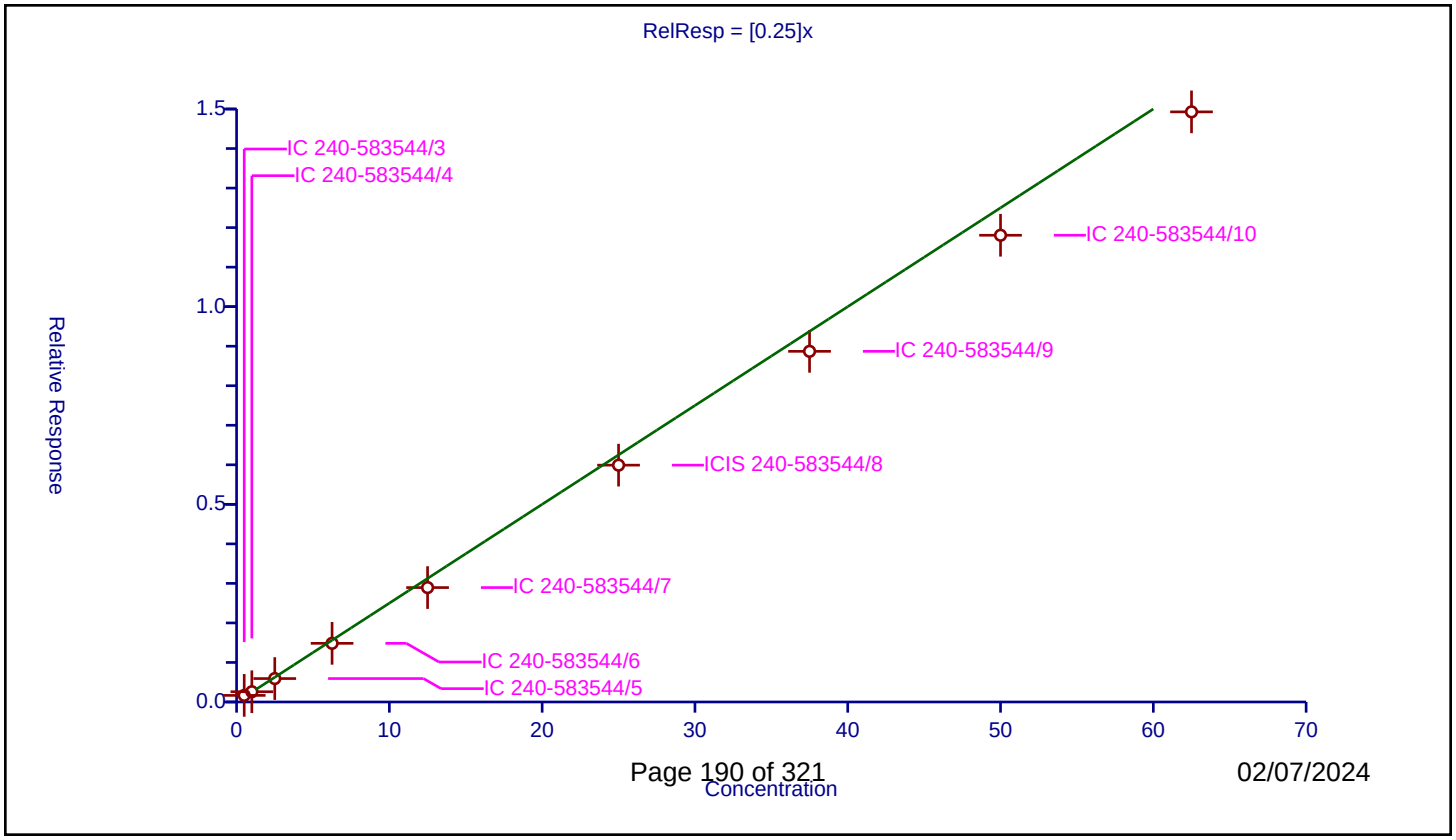
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.25 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 511000 |
| **Relative Standard Error:** | 13.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.975 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.166964 | 10.0 | 672601.0 | 0.333928 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.259062 | 10.0 | 642201.0 | 0.259062 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.592494 | 10.0 | 641914.0 | 0.236997 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.483856 | 10.0 | 639577.0 | 0.237417 | Y |
| 5 | IC 240-583544/7 | 12.5 | 2.8939 | 10.0 | 646871.0 | 0.231512 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 5.990897 | 10.0 | 647489.0 | 0.239636 | Y |
| 7 | IC 240-583544/9 | 37.5 | 8.870243 | 10.0 | 663718.0 | 0.23654 | Y |
| 8 | IC 240-583544/10 | 50.0 | 11.806578 | 10.0 | 655128.0 | 0.236132 | Y |
| 9 | IC 240-583544/11 | 62.5 | 14.927613 | 10.0 | 651776.0 | 0.238842 | Y |



## Calibration / 1,1,2-Trichloro-1,2,2-trifluoroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

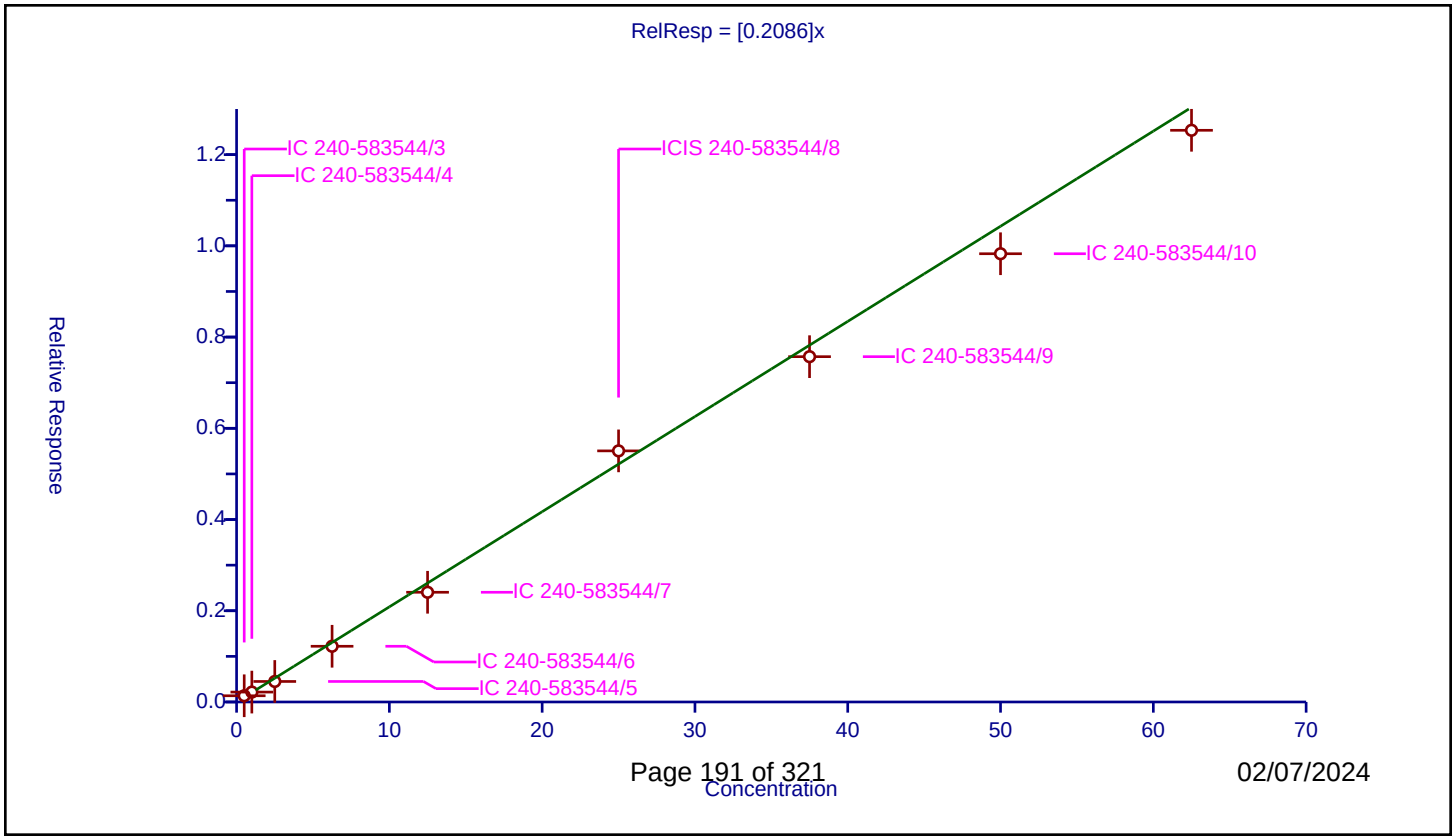
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2086 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 432000 |
| **Relative Standard Error:** | 13.0 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.976 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.136485 | 10.0 | 672601.0 | 0.27297 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.217393 | 10.0 | 642201.0 | 0.217393 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.449811 | 10.0 | 641914.0 | 0.179924 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.221557 | 10.0 | 639577.0 | 0.195449 | Y |
| 5 | IC 240-583544/7 | 12.5 | 2.405178 | 10.0 | 646871.0 | 0.192414 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 5.505298 | 10.0 | 647489.0 | 0.220212 | Y |
| 7 | IC 240-583544/9 | 37.5 | 7.570715 | 10.0 | 663718.0 | 0.201886 | Y |
| 8 | IC 240-583544/10 | 50.0 | 9.827164 | 10.0 | 655128.0 | 0.196543 | Y |
| 9 | IC 240-583544/11 | 62.5 | 12.533493 | 10.0 | 651776.0 | 0.200536 | Y |



## Calibration / Acetone

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

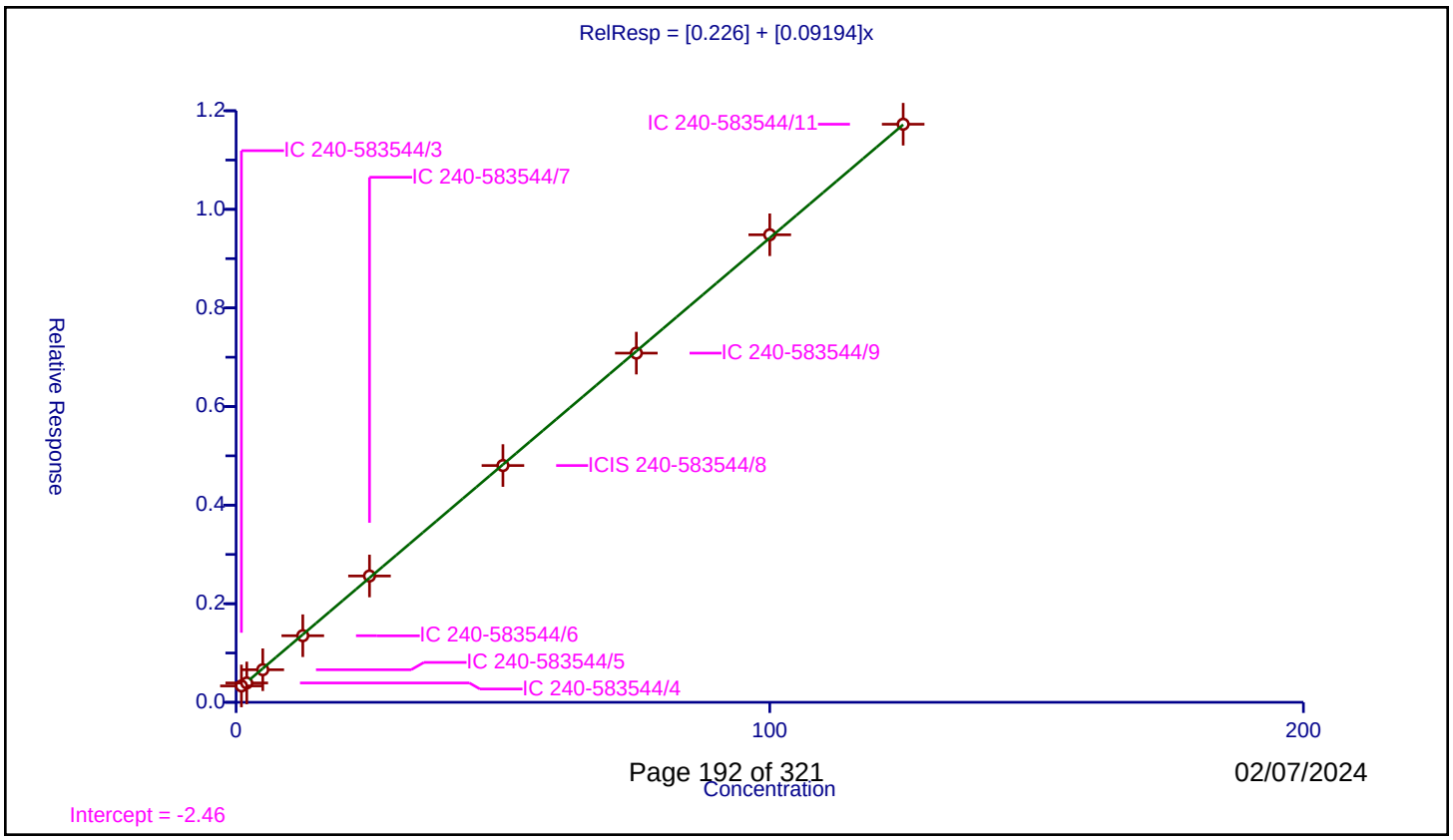
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.226 |
| **Slope:** | 0.09194 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 435000 |
| **Relative Standard Error:** | 7.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 1.0 | 0.332262 | 10.0 | 672601.0 | 0.332262 | Y |
| 2 | IC 240-583544/4 | 2.0 | 0.392432 | 10.0 | 642201.0 | 0.196216 | Y |
| 3 | IC 240-583544/5 | 5.0 | 0.660961 | 10.0 | 641914.0 | 0.132192 | Y |
| 4 | IC 240-583544/6 | 12.5 | 1.351252 | 10.0 | 639577.0 | 0.1081 | Y |
| 5 | IC 240-583544/7 | 25.0 | 2.562536 | 10.0 | 646871.0 | 0.102501 | Y |
| 6 | ICIS 240-583544/8 | 50.0 | 4.803418 | 10.0 | 647489.0 | 0.096068 | Y |
| 7 | IC 240-583544/9 | 75.0 | 7.083309 | 10.0 | 663718.0 | 0.094444 | Y |
| 8 | IC 240-583544/10 | 100.0 | 9.483948 | 10.0 | 655128.0 | 0.094839 | Y |
| 9 | IC 240-583544/11 | 125.0 | 11.726943 | 10.0 | 651776.0 | 0.093816 | Y |



## Calibration / Iodomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

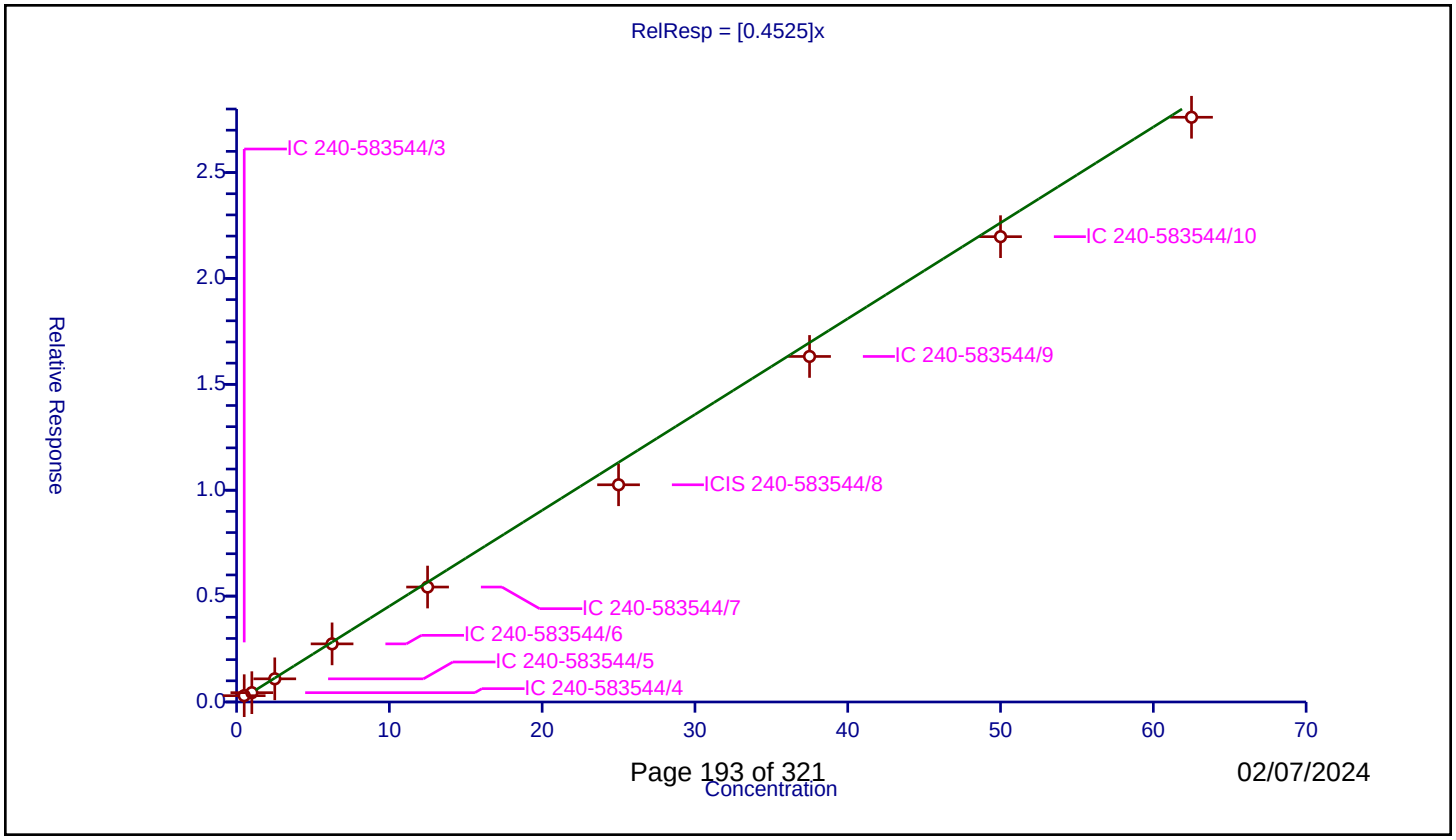
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4525 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 941000 |
| **Relative Standard Error:** | 11.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.297204 | 10.0 | 672601.0 | 0.594409 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.440688 | 10.0 | 642201.0 | 0.440688 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.094087 | 10.0 | 641914.0 | 0.437635 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.743923 | 10.0 | 639577.0 | 0.439028 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.42745 | 10.0 | 646871.0 | 0.434196 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 10.256622 | 10.0 | 647489.0 | 0.410265 | Y |
| 7 | IC 240-583544/9 | 37.5 | 16.316146 | 10.0 | 663718.0 | 0.435097 | Y |
| 8 | IC 240-583544/10 | 50.0 | 21.971951 | 10.0 | 655128.0 | 0.439439 | Y |
| 9 | IC 240-583544/11 | 62.5 | 27.611311 | 10.0 | 651776.0 | 0.441781 | Y |



## Calibration / Carbon disulfide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

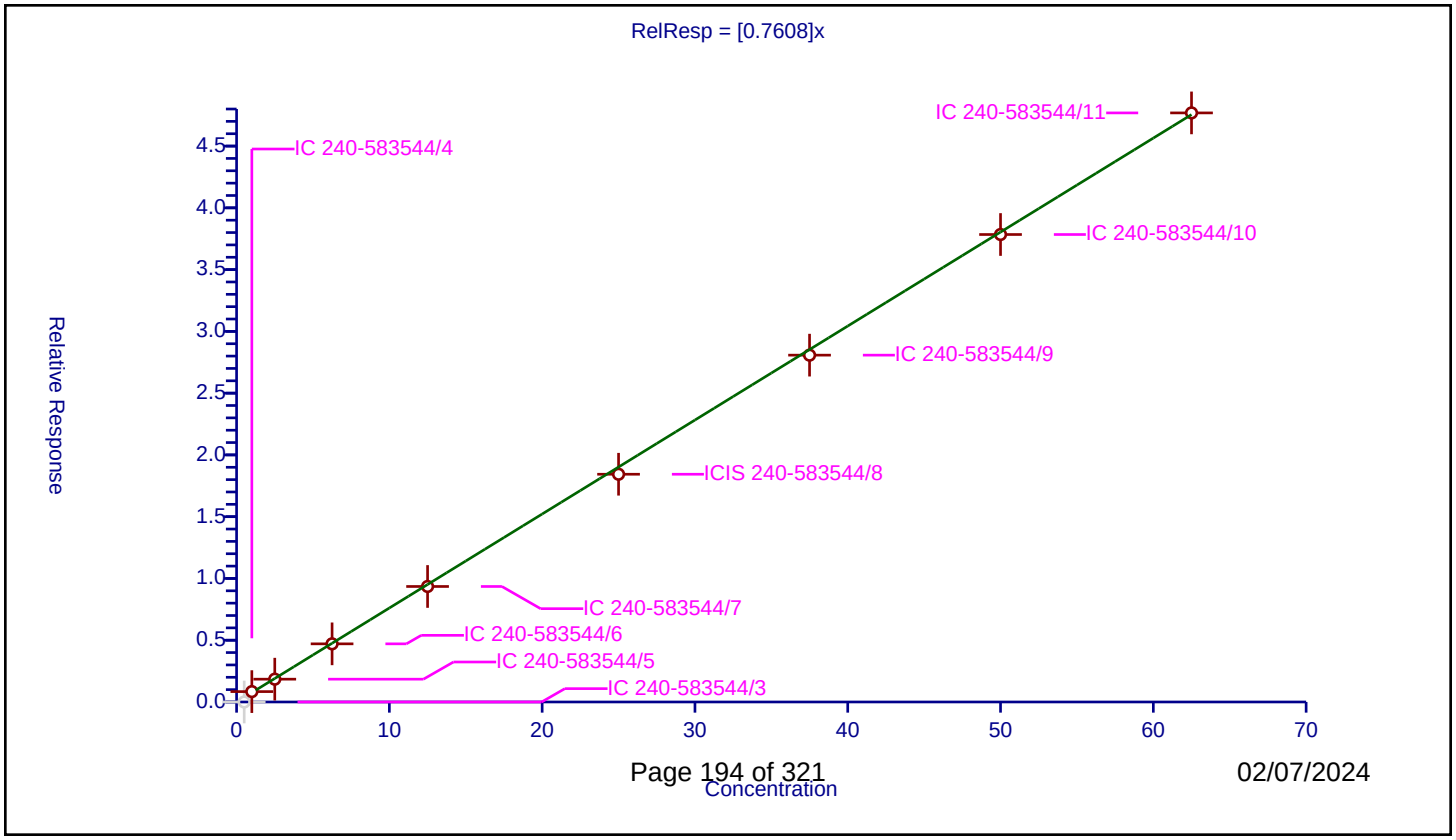
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7608 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1740000 |
| **Relative Standard Error:** | 4.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 1.0 | 0.840671 | 10.0 | 642201.0 | 0.840671 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.845699 | 10.0 | 641914.0 | 0.73828 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.707846 | 10.0 | 639577.0 | 0.753255 | Y |
| 5 | IC 240-583544/7 | 12.5 | 9.35052 | 10.0 | 646871.0 | 0.748042 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 18.436282 | 10.0 | 647489.0 | 0.737451 | Y |
| 7 | IC 240-583544/9 | 37.5 | 28.076728 | 10.0 | 663718.0 | 0.748713 | Y |
| 8 | IC 240-583544/10 | 50.0 | 37.841994 | 10.0 | 655128.0 | 0.75684 | Y |
| 9 | IC 240-583544/11 | 62.5 | 47.684097 | 10.0 | 651776.0 | 0.762946 | Y |



## Calibration / Methyl acetate

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

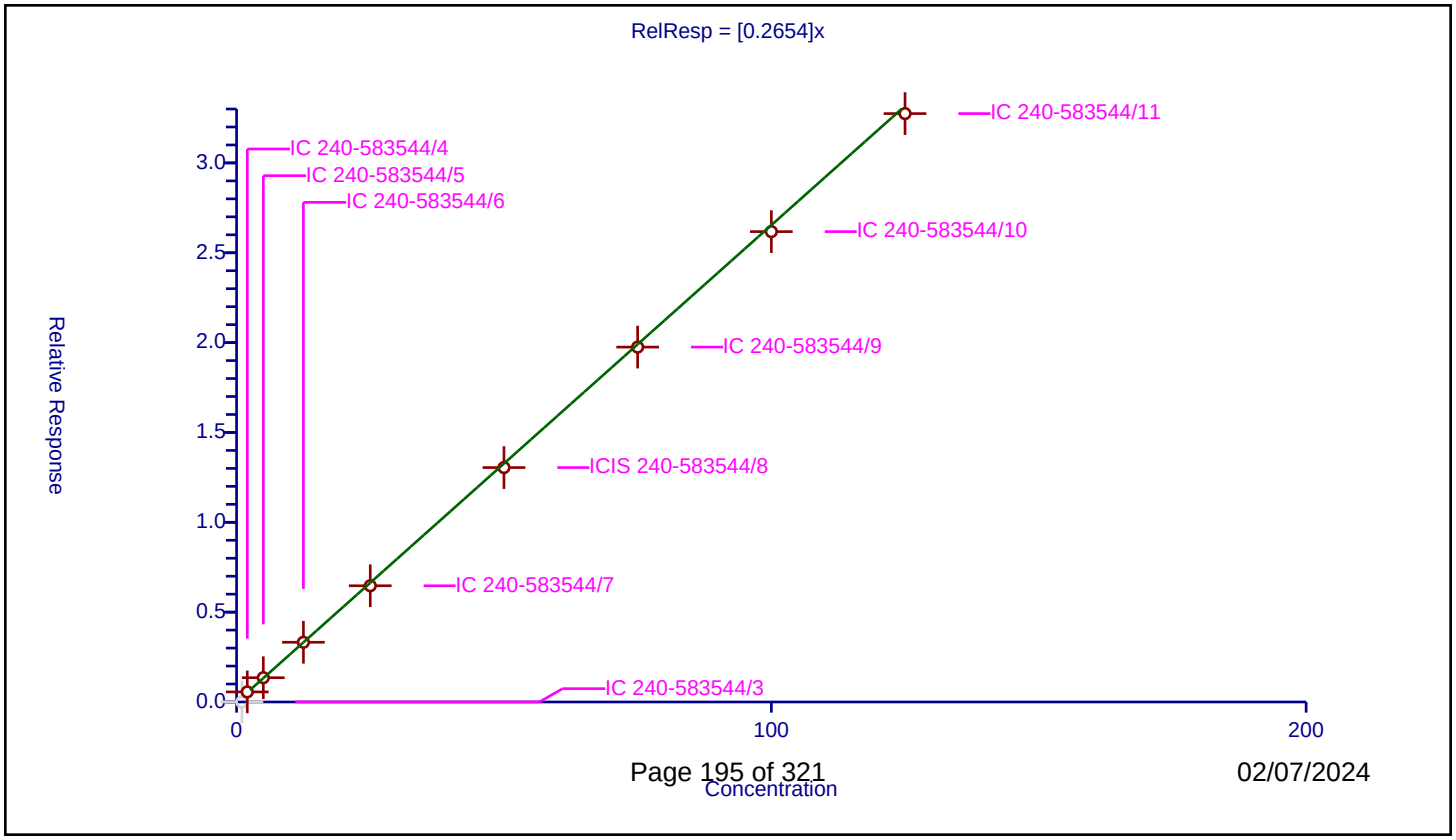
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2654 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1200000 |
| **Relative Standard Error:** | 2.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 1.0 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 2.0 | 0.560432 | 10.0 | 642201.0 | 0.280216 | Y |
| 3 | IC 240-583544/5 | 5.0 | 1.351131 | 10.0 | 641914.0 | 0.270226 | Y |
| 4 | IC 240-583544/6 | 12.5 | 3.323181 | 10.0 | 639577.0 | 0.265854 | Y |
| 5 | IC 240-583544/7 | 25.0 | 6.468631 | 10.0 | 646871.0 | 0.258745 | Y |
| 6 | ICIS 240-583544/8 | 50.0 | 13.045781 | 10.0 | 647489.0 | 0.260916 | Y |
| 7 | IC 240-583544/9 | 75.0 | 19.750361 | 10.0 | 663718.0 | 0.263338 | Y |
| 8 | IC 240-583544/10 | 100.0 | 26.176747 | 10.0 | 655128.0 | 0.261767 | Y |
| 9 | IC 240-583544/11 | 125.0 | 32.745376 | 10.0 | 651776.0 | 0.261963 | Y |



## Calibration / 3-Chloro-1-propene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

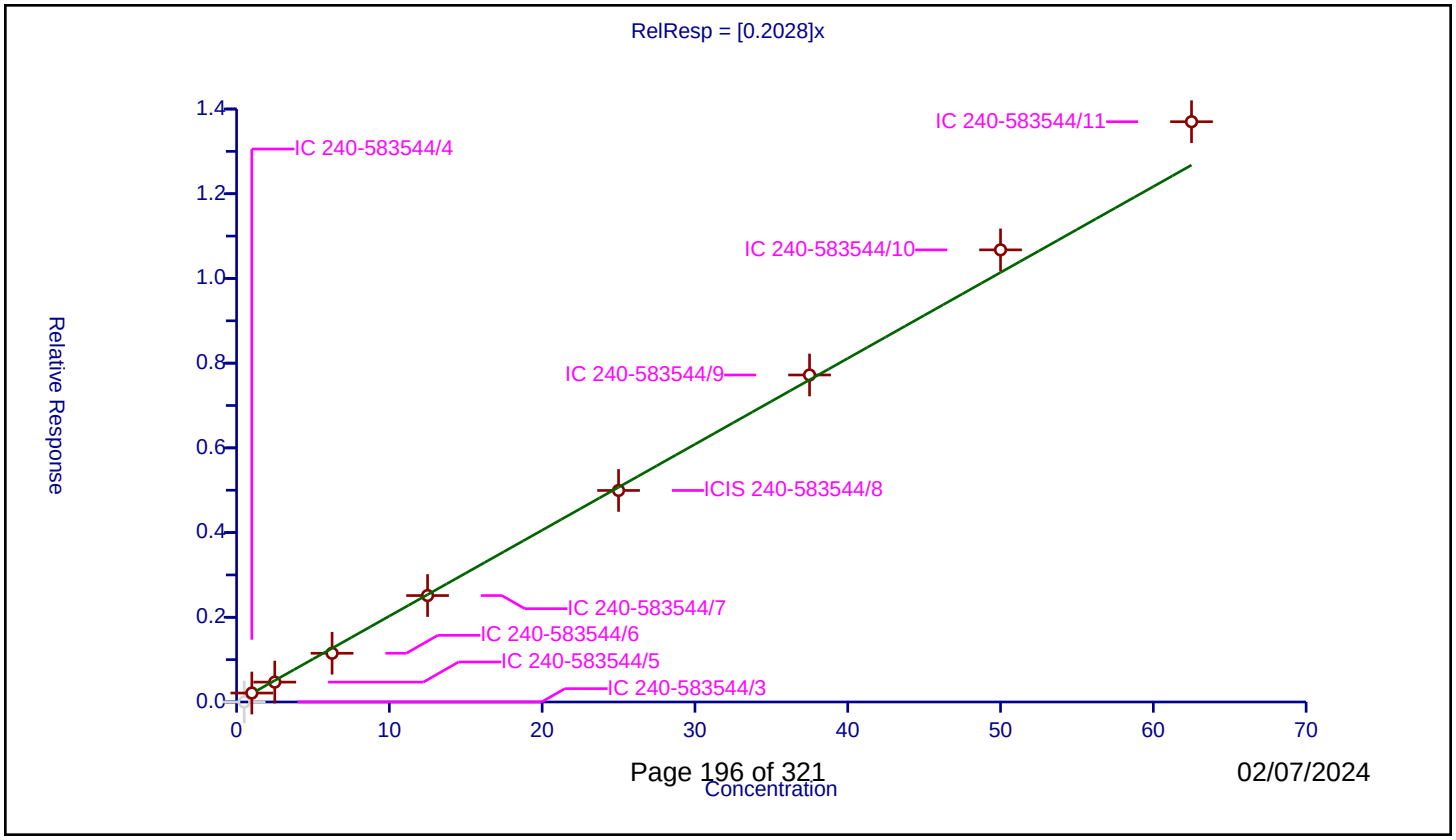
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2028 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 491000 |
| **Relative Standard Error:** | 6.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 1.0 | 0.211258 | 10.0 | 642201.0 | 0.211258 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.469502 | 10.0 | 641914.0 | 0.187801 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.150276 | 10.0 | 639577.0 | 0.184044 | Y |
| 5 | IC 240-583544/7 | 12.5 | 2.513098 | 10.0 | 646871.0 | 0.201048 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 4.994293 | 10.0 | 647489.0 | 0.199772 | Y |
| 7 | IC 240-583544/9 | 37.5 | 7.720312 | 10.0 | 663718.0 | 0.205875 | Y |
| 8 | IC 240-583544/10 | 50.0 | 10.674738 | 10.0 | 655128.0 | 0.213495 | Y |
| 9 | IC 240-583544/11 | 62.5 | 13.700274 | 10.0 | 651776.0 | 0.219204 | Y |



## Calibration / Methylene Chloride

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

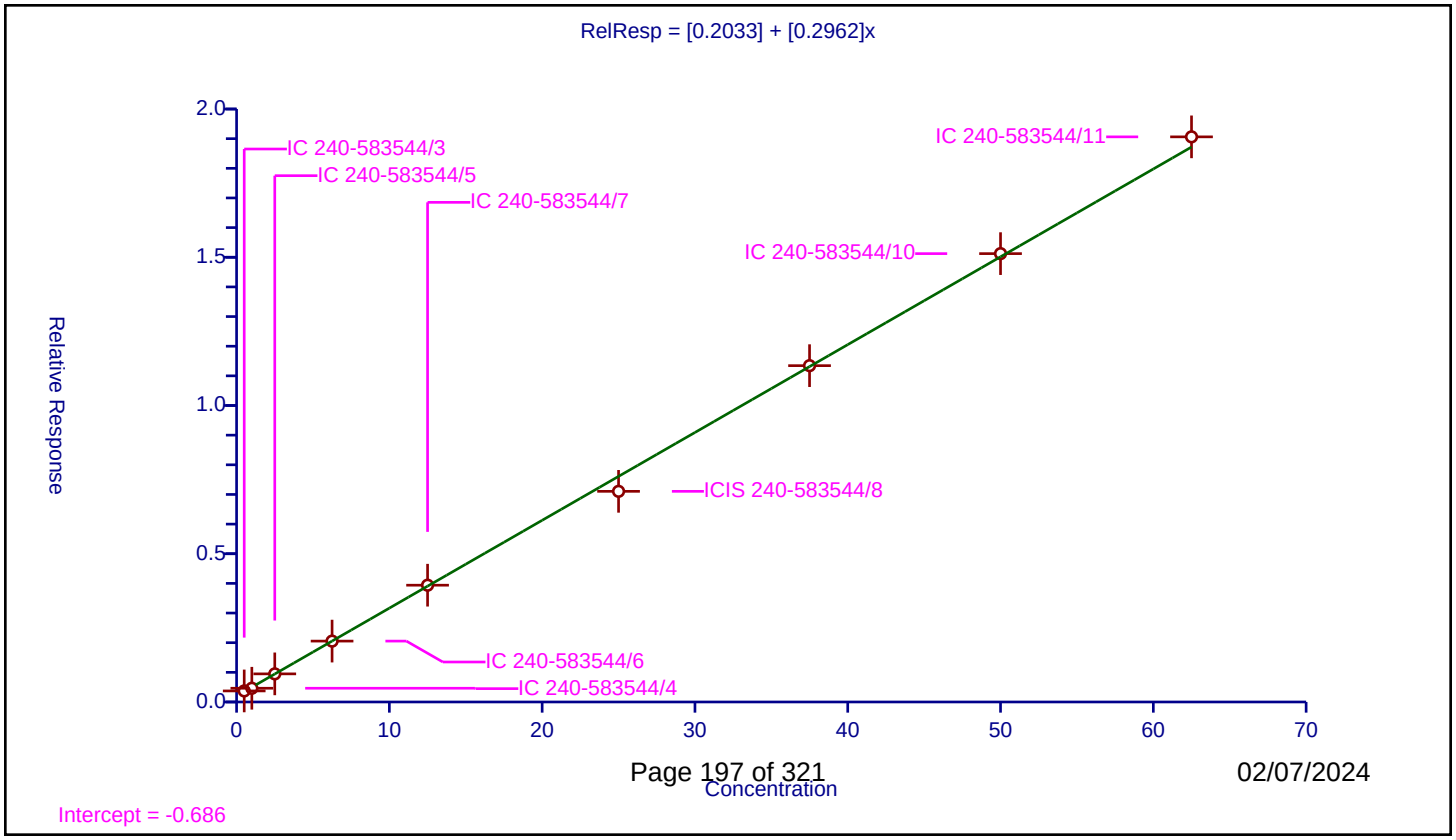
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.2033 |
| **Slope:** | 0.2962 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 696000 |
| **Relative Standard Error:** | 7.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.373059 | 10.0 | 672601.0 | 0.746118 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.463578 | 10.0 | 642201.0 | 0.463578 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.948414 | 10.0 | 641914.0 | 0.379365 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.053373 | 10.0 | 639577.0 | 0.32854 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.938931 | 10.0 | 646871.0 | 0.315114 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 7.104677 | 10.0 | 647489.0 | 0.284187 | Y |
| 7 | IC 240-583544/9 | 37.5 | 11.343628 | 10.0 | 663718.0 | 0.302497 | Y |
| 8 | IC 240-583544/10 | 50.0 | 15.122739 | 10.0 | 655128.0 | 0.302455 | Y |
| 9 | IC 240-583544/11 | 62.5 | 19.061303 | 10.0 | 651776.0 | 0.304981 | Y |



## Calibration / 2-Methyl-2-propanol

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

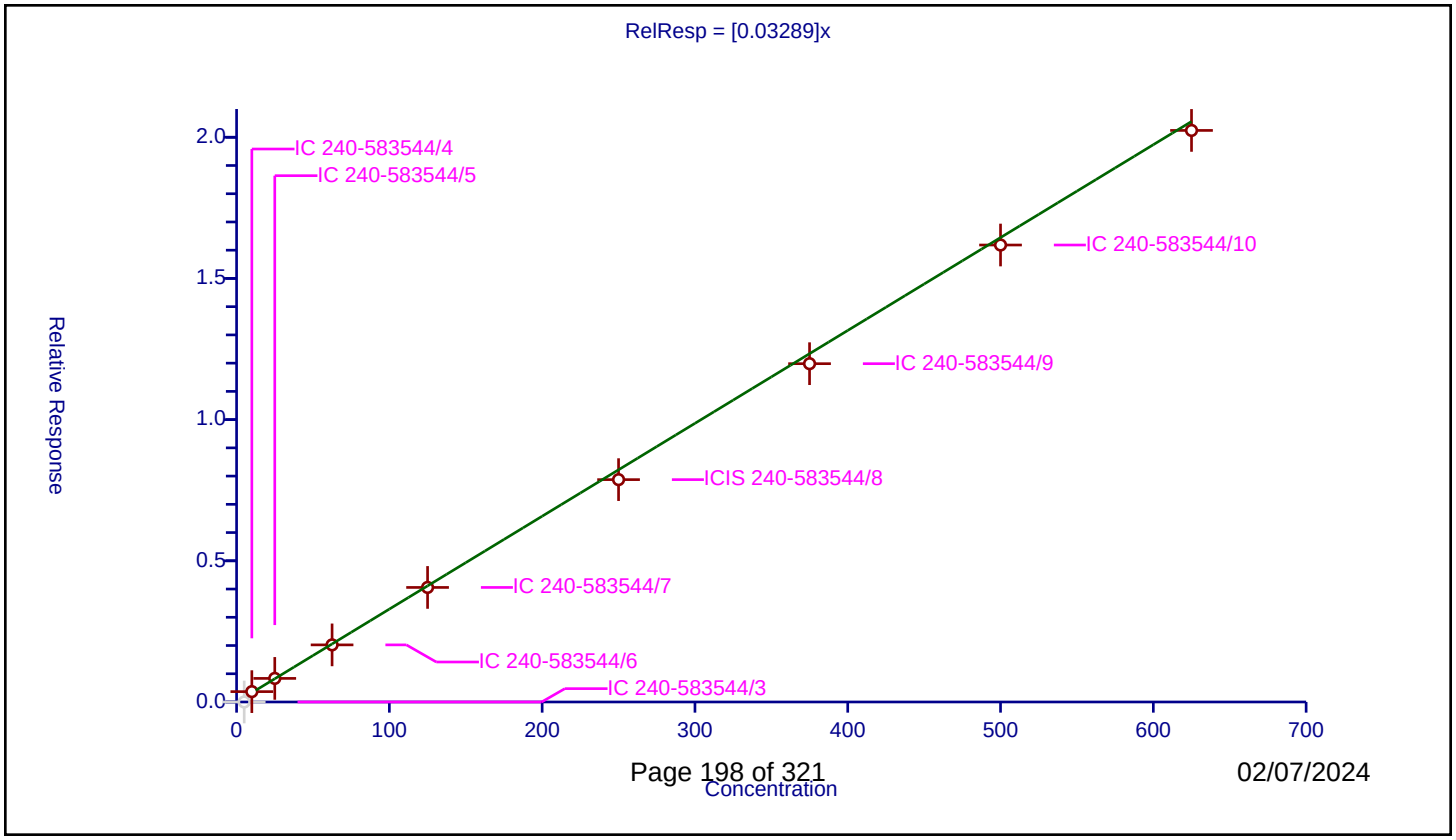
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.03289 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 741000 |
| **Relative Standard Error:** | 5.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 5.0 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 10.0 | 0.367081 | 10.0 | 642201.0 | 0.036708 | Y |
| 3 | IC 240-583544/5 | 25.0 | 0.835564 | 10.0 | 641914.0 | 0.033423 | Y |
| 4 | IC 240-583544/6 | 62.5 | 2.022821 | 10.0 | 639577.0 | 0.032365 | Y |
| 5 | IC 240-583544/7 | 125.0 | 4.056203 | 10.0 | 646871.0 | 0.03245 | Y |
| 6 | ICIS 240-583544/8 | 250.0 | 7.874558 | 10.0 | 647489.0 | 0.031498 | Y |
| 7 | IC 240-583544/9 | 375.0 | 11.981037 | 10.0 | 663718.0 | 0.031949 | Y |
| 8 | IC 240-583544/10 | 500.0 | 16.183509 | 10.0 | 655128.0 | 0.032367 | Y |
| 9 | IC 240-583544/11 | 625.0 | 20.241172 | 10.0 | 651776.0 | 0.032386 | Y |



## Calibration / Acrylonitrile

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

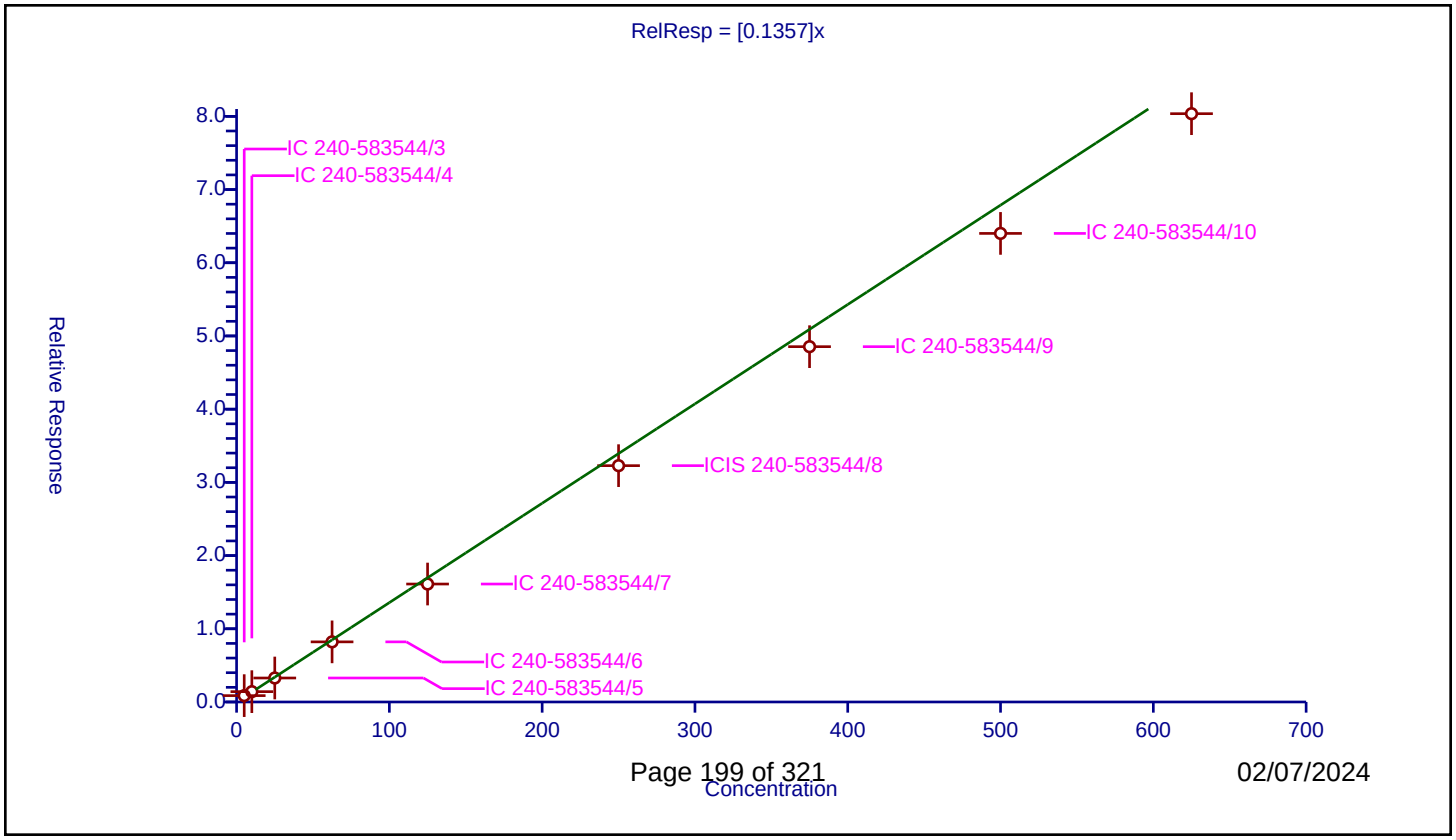
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1357 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2770000 |
| **Relative Standard Error:** | 11.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 5.0 | 0.870204 | 10.0 | 672601.0 | 0.174041 | Y |
| 2 | IC 240-583544/4 | 10.0 | 1.410711 | 10.0 | 642201.0 | 0.141071 | Y |
| 3 | IC 240-583544/5 | 25.0 | 3.277059 | 10.0 | 641914.0 | 0.131082 | Y |
| 4 | IC 240-583544/6 | 62.5 | 8.211021 | 10.0 | 639577.0 | 0.131376 | Y |
| 5 | IC 240-583544/7 | 125.0 | 16.113522 | 10.0 | 646871.0 | 0.128908 | Y |
| 6 | ICIS 240-583544/8 | 250.0 | 32.281429 | 10.0 | 647489.0 | 0.129126 | Y |
| 7 | IC 240-583544/9 | 375.0 | 48.535282 | 10.0 | 663718.0 | 0.129427 | Y |
| 8 | IC 240-583544/10 | 500.0 | 64.005538 | 10.0 | 655128.0 | 0.128011 | Y |
| 9 | IC 240-583544/11 | 625.0 | 80.361244 | 10.0 | 651776.0 | 0.128578 | Y |



## Calibration / Methyl tert-butyl ether

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

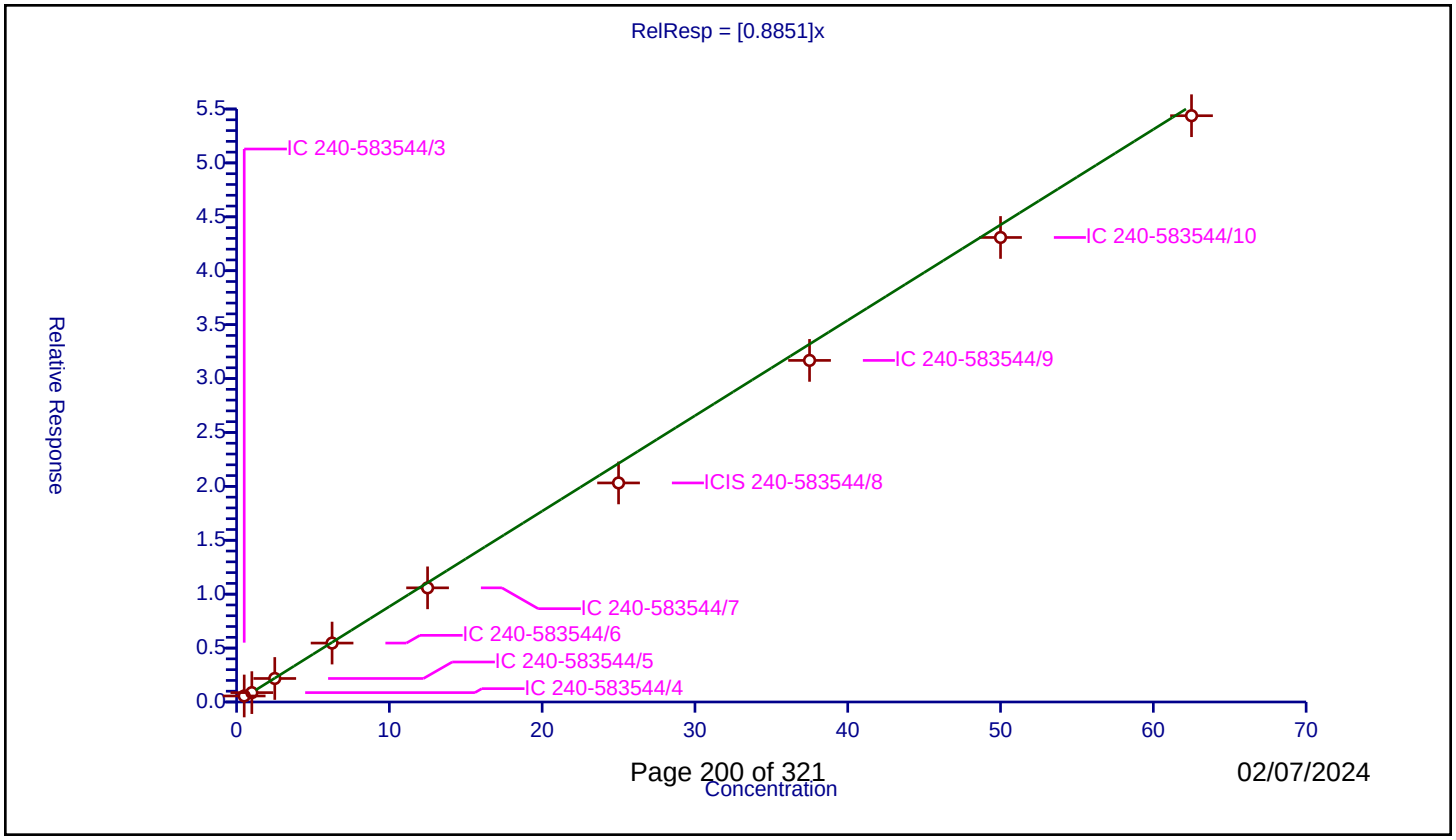
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8851 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1850000 |
| **Relative Standard Error:** | 9.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.556942 | 10.0 | 672601.0 | 1.113885 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.869198 | 10.0 | 642201.0 | 0.869198 | Y |
| 3 | IC 240-583544/5 | 2.5 | 2.181055 | 10.0 | 641914.0 | 0.872422 | Y |
| 4 | IC 240-583544/6 | 6.25 | 5.463986 | 10.0 | 639577.0 | 0.874238 | Y |
| 5 | IC 240-583544/7 | 12.5 | 10.58732 | 10.0 | 646871.0 | 0.846986 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 20.31792 | 10.0 | 647489.0 | 0.812717 | Y |
| 7 | IC 240-583544/9 | 37.5 | 31.683923 | 10.0 | 663718.0 | 0.844905 | Y |
| 8 | IC 240-583544/10 | 50.0 | 43.085031 | 10.0 | 655128.0 | 0.861701 | Y |
| 9 | IC 240-583544/11 | 62.5 | 54.378836 | 10.0 | 651776.0 | 0.870061 | Y |



## Calibration / trans-1,2-Dichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

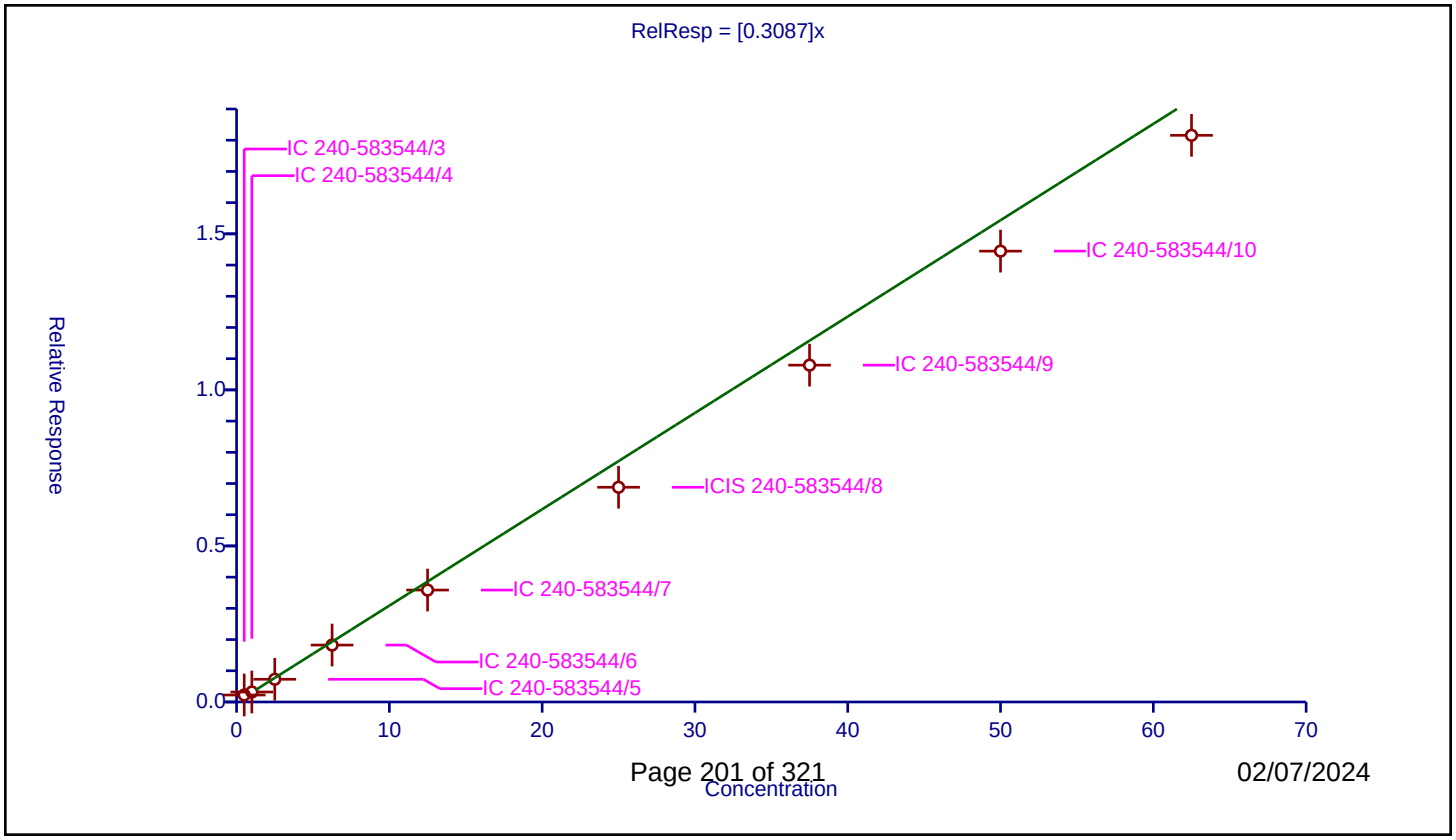
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3087 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 620000 |
| **Relative Standard Error:** | 17.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.954 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.223104 | 10.0 | 672601.0 | 0.446208 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.320024 | 10.0 | 642201.0 | 0.320024 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.72759 | 10.0 | 641914.0 | 0.291036 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.824112 | 10.0 | 639577.0 | 0.291858 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.586867 | 10.0 | 646871.0 | 0.286949 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 6.880055 | 10.0 | 647489.0 | 0.275202 | Y |
| 7 | IC 240-583544/9 | 37.5 | 10.793078 | 10.0 | 663718.0 | 0.287815 | Y |
| 8 | IC 240-583544/10 | 50.0 | 14.447009 | 10.0 | 655128.0 | 0.28894 | Y |
| 9 | IC 240-583544/11 | 62.5 | 18.156391 | 10.0 | 651776.0 | 0.290502 | Y |



## Calibration / Hexane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

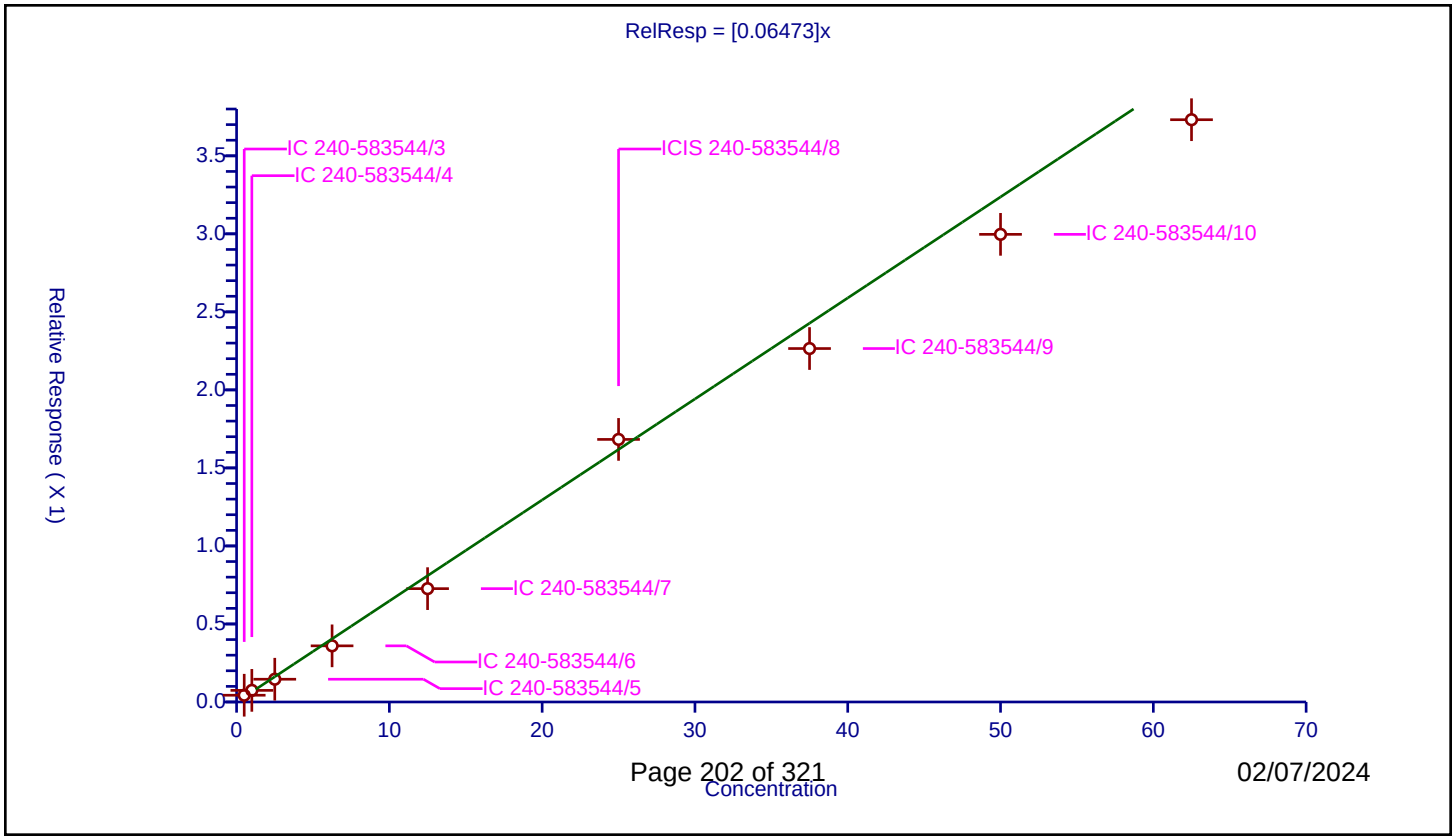
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.06473 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 130000 |
| **Relative Standard Error:** | 15.3 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.964 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.043369 | 10.0 | 672601.0 | 0.086738 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.074447 | 10.0 | 642201.0 | 0.074447 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.145814 | 10.0 | 641914.0 | 0.058326 | Y |
| 4 | IC 240-583544/6 | 6.25 | 0.359847 | 10.0 | 639577.0 | 0.057576 | Y |
| 5 | IC 240-583544/7 | 12.5 | 0.726389 | 10.0 | 646871.0 | 0.058111 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 1.682716 | 10.0 | 647489.0 | 0.067309 | Y |
| 7 | IC 240-583544/9 | 37.5 | 2.264998 | 10.0 | 663718.0 | 0.0604 | Y |
| 8 | IC 240-583544/10 | 50.0 | 2.996849 | 10.0 | 655128.0 | 0.059937 | Y |
| 9 | IC 240-583544/11 | 62.5 | 3.731451 | 10.0 | 651776.0 | 0.059703 | Y |



## Calibration / Vinyl acetate

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

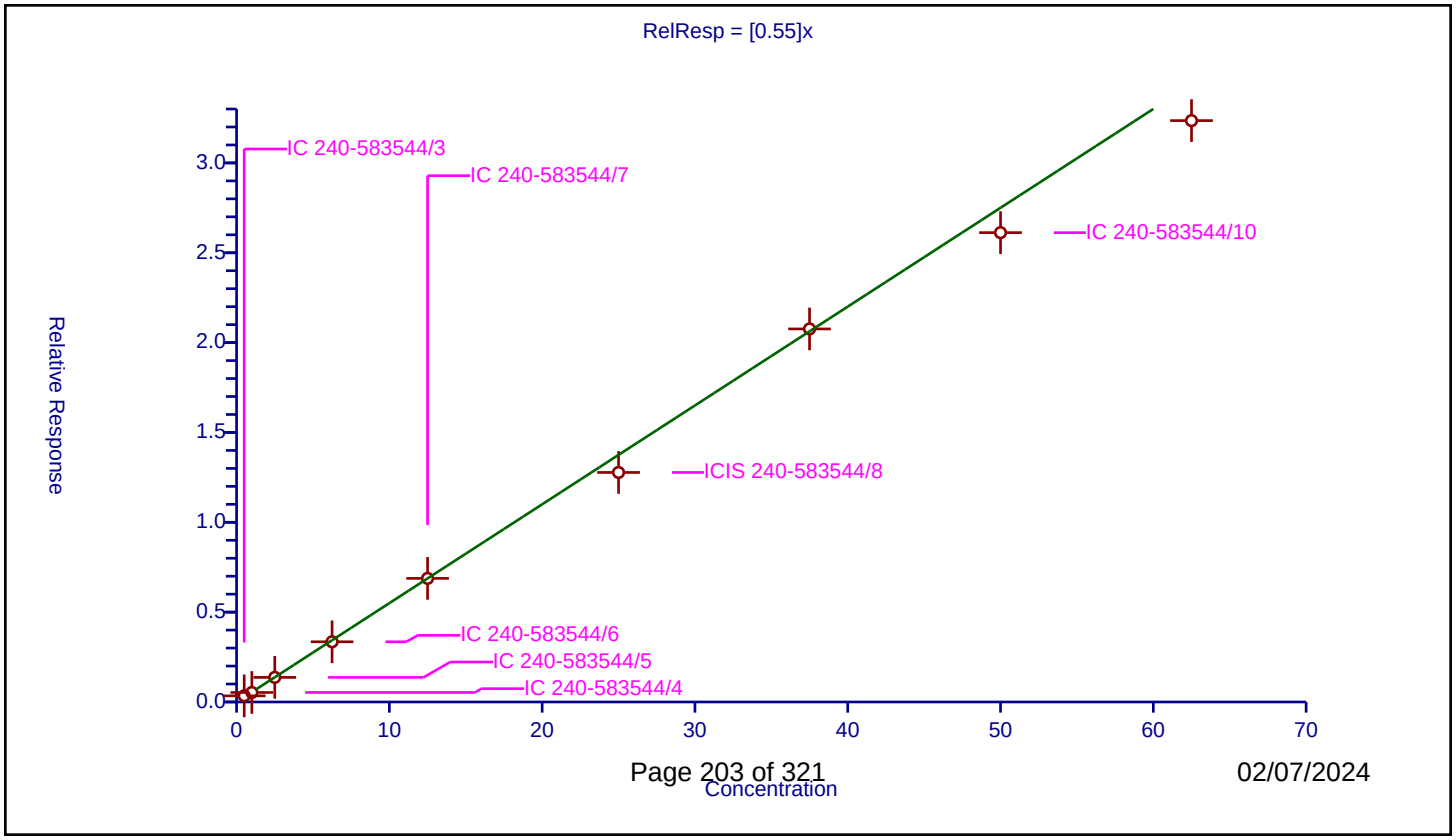
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.55 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1130000 |
| **Relative Standard Error:** | 9.4 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.341332 | 10.0 | 672601.0 | 0.682663 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.528962 | 10.0 | 642201.0 | 0.528962 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.36942 | 10.0 | 641914.0 | 0.547768 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.350292 | 10.0 | 639577.0 | 0.536047 | Y |
| 5 | IC 240-583544/7 | 12.5 | 6.879192 | 10.0 | 646871.0 | 0.550335 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 12.77441 | 10.0 | 647489.0 | 0.510976 | Y |
| 7 | IC 240-583544/9 | 37.5 | 20.761016 | 10.0 | 663718.0 | 0.553627 | Y |
| 8 | IC 240-583544/10 | 50.0 | 26.119888 | 10.0 | 655128.0 | 0.522398 | Y |
| 9 | IC 240-583544/11 | 62.5 | 32.353845 | 10.0 | 651776.0 | 0.517662 | Y |



## Calibration / 1,1-Dichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

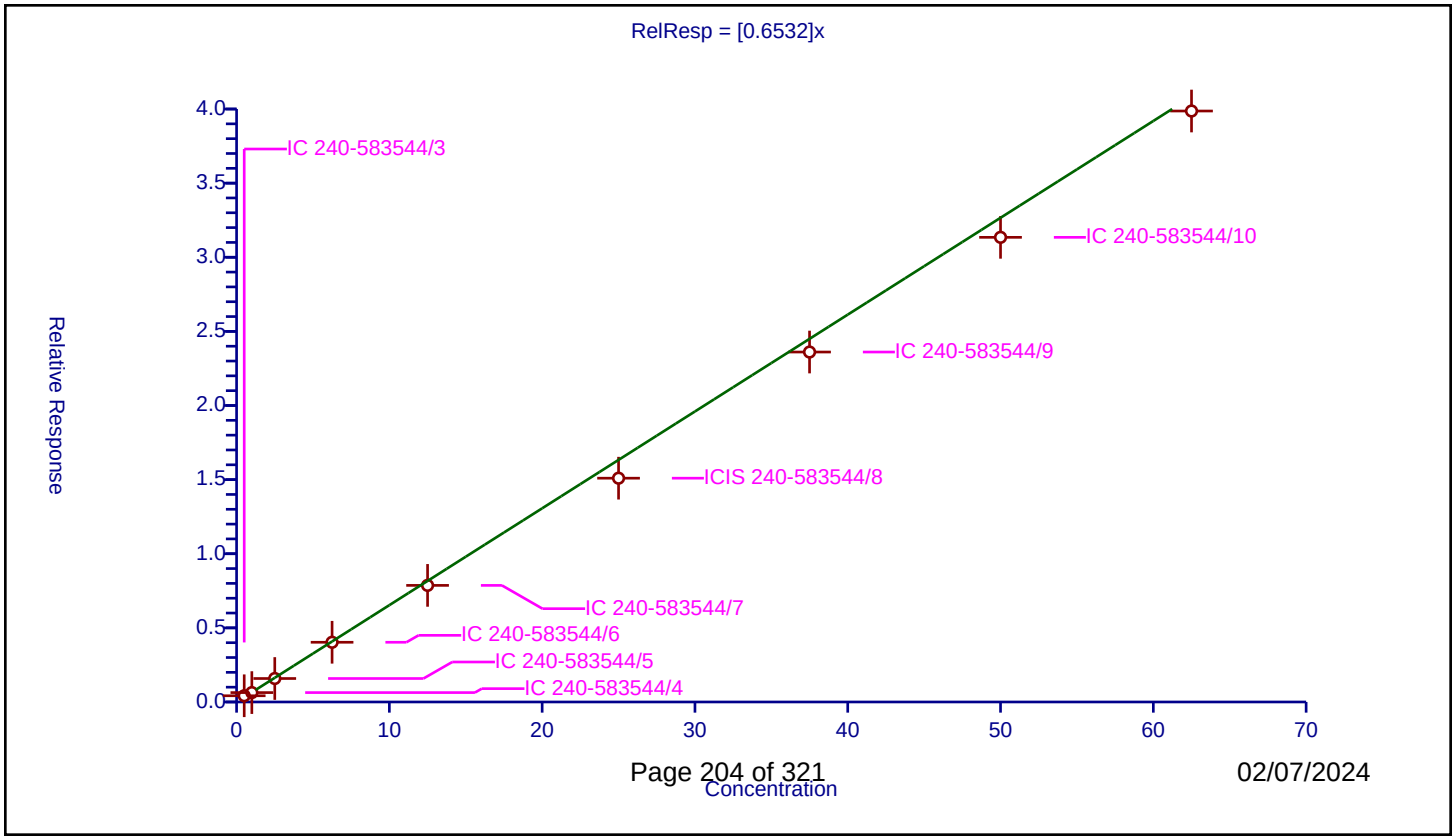
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6532 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1360000 |
| **Relative Standard Error:** | 10.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.419729 | 10.0 | 672601.0 | 0.839458 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.634287 | 10.0 | 642201.0 | 0.634287 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.583997 | 10.0 | 641914.0 | 0.633599 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.028194 | 10.0 | 639577.0 | 0.644511 | Y |
| 5 | IC 240-583544/7 | 12.5 | 7.864798 | 10.0 | 646871.0 | 0.629184 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 15.097291 | 10.0 | 647489.0 | 0.603892 | Y |
| 7 | IC 240-583544/9 | 37.5 | 23.606517 | 10.0 | 663718.0 | 0.629507 | Y |
| 8 | IC 240-583544/10 | 50.0 | 31.344531 | 10.0 | 655128.0 | 0.626891 | Y |
| 9 | IC 240-583544/11 | 62.5 | 39.864417 | 10.0 | 651776.0 | 0.637831 | Y |



## Calibration / 2-Butanone (MEK)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

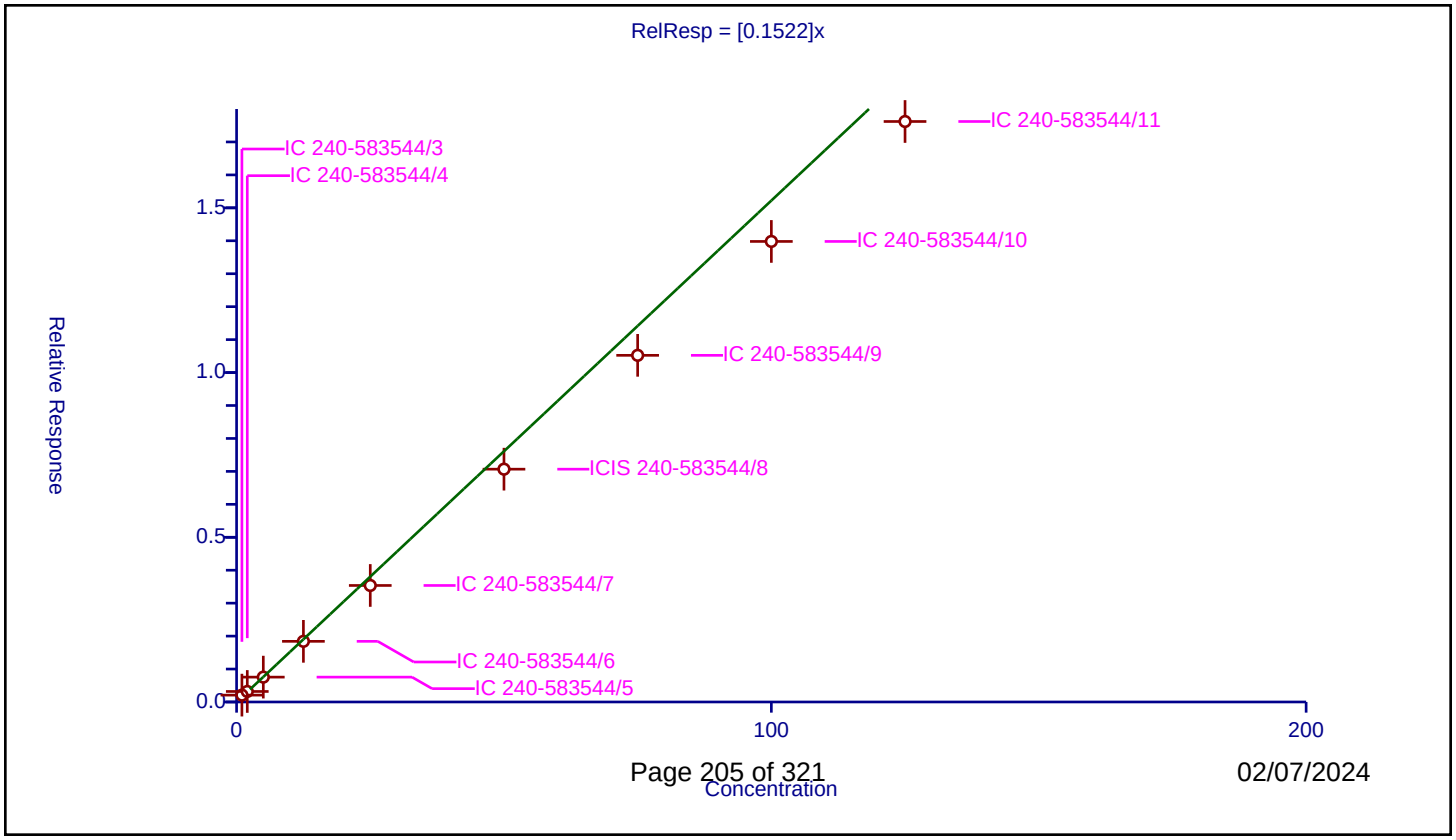
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1522 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 605000 |
| **Relative Standard Error:** | 14.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.968 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 1.0 | 0.208132 | 10.0 | 672601.0 | 0.208132 | Y |
| 2 | IC 240-583544/4 | 2.0 | 0.319308 | 10.0 | 642201.0 | 0.159654 | Y |
| 3 | IC 240-583544/5 | 5.0 | 0.754478 | 10.0 | 641914.0 | 0.150896 | Y |
| 4 | IC 240-583544/6 | 12.5 | 1.841061 | 10.0 | 639577.0 | 0.147285 | Y |
| 5 | IC 240-583544/7 | 25.0 | 3.536687 | 10.0 | 646871.0 | 0.141467 | Y |
| 6 | ICIS 240-583544/8 | 50.0 | 7.067379 | 10.0 | 647489.0 | 0.141348 | Y |
| 7 | IC 240-583544/9 | 75.0 | 10.523099 | 10.0 | 663718.0 | 0.140308 | Y |
| 8 | IC 240-583544/10 | 100.0 | 13.980367 | 10.0 | 655128.0 | 0.139804 | Y |
| 9 | IC 240-583544/11 | 125.0 | 17.621284 | 10.0 | 651776.0 | 0.14097 | Y |



## Calibration / cis-1,2-Dichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

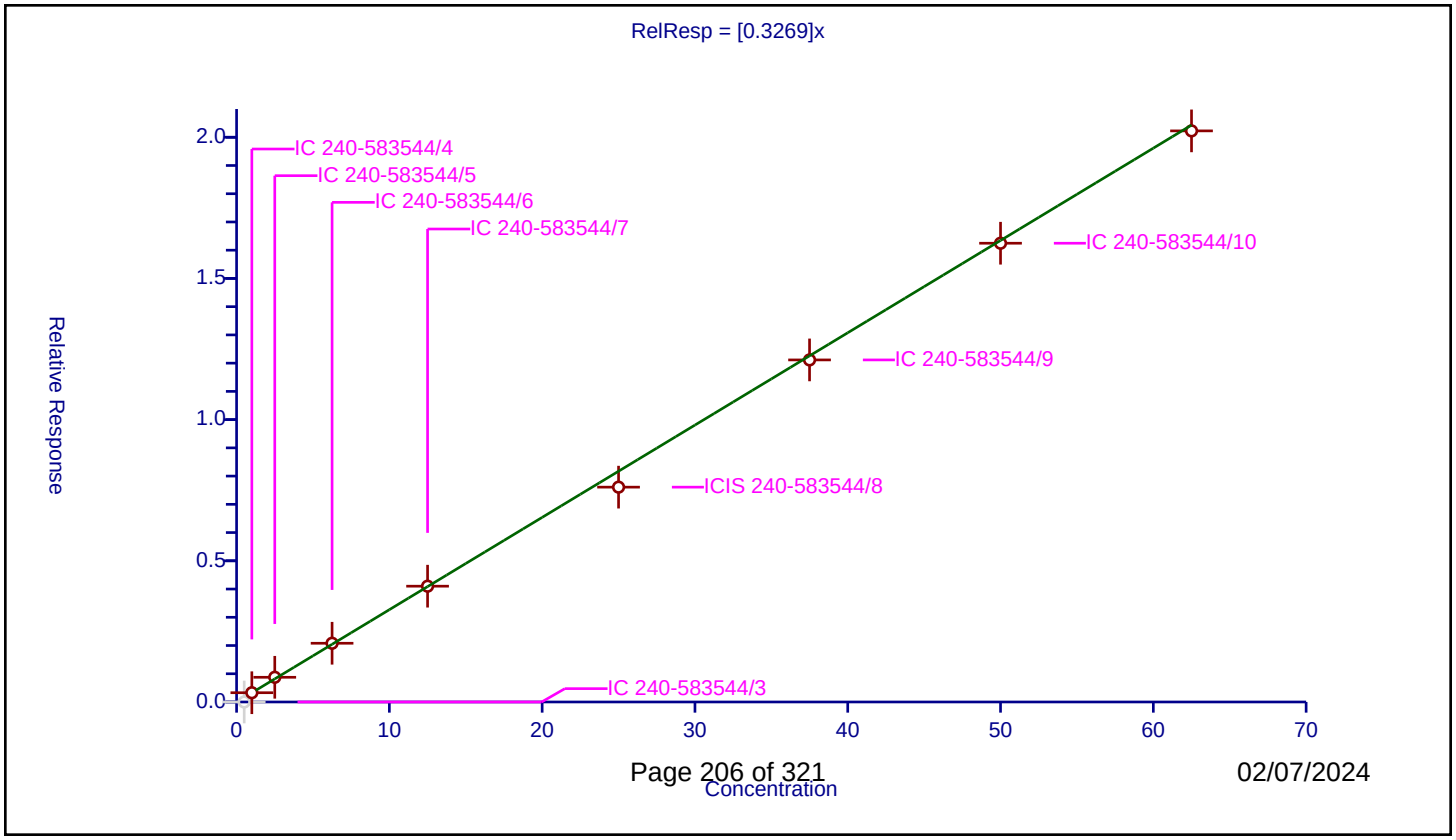
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3269 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 742000 |
| **Relative Standard Error:** | 3.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 1.0 | 0.328542 | 10.0 | 642201.0 | 0.328542 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.874556 | 10.0 | 641914.0 | 0.349823 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.079687 | 10.0 | 639577.0 | 0.33275 | Y |
| 5 | IC 240-583544/7 | 12.5 | 4.101204 | 10.0 | 646871.0 | 0.328096 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 7.608284 | 10.0 | 647489.0 | 0.304331 | Y |
| 7 | IC 240-583544/9 | 37.5 | 12.114166 | 10.0 | 663718.0 | 0.323044 | Y |
| 8 | IC 240-583544/10 | 50.0 | 16.247191 | 10.0 | 655128.0 | 0.324944 | Y |
| 9 | IC 240-583544/11 | 62.5 | 20.225307 | 10.0 | 651776.0 | 0.323605 | Y |



## Calibration / 2,2-Dichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

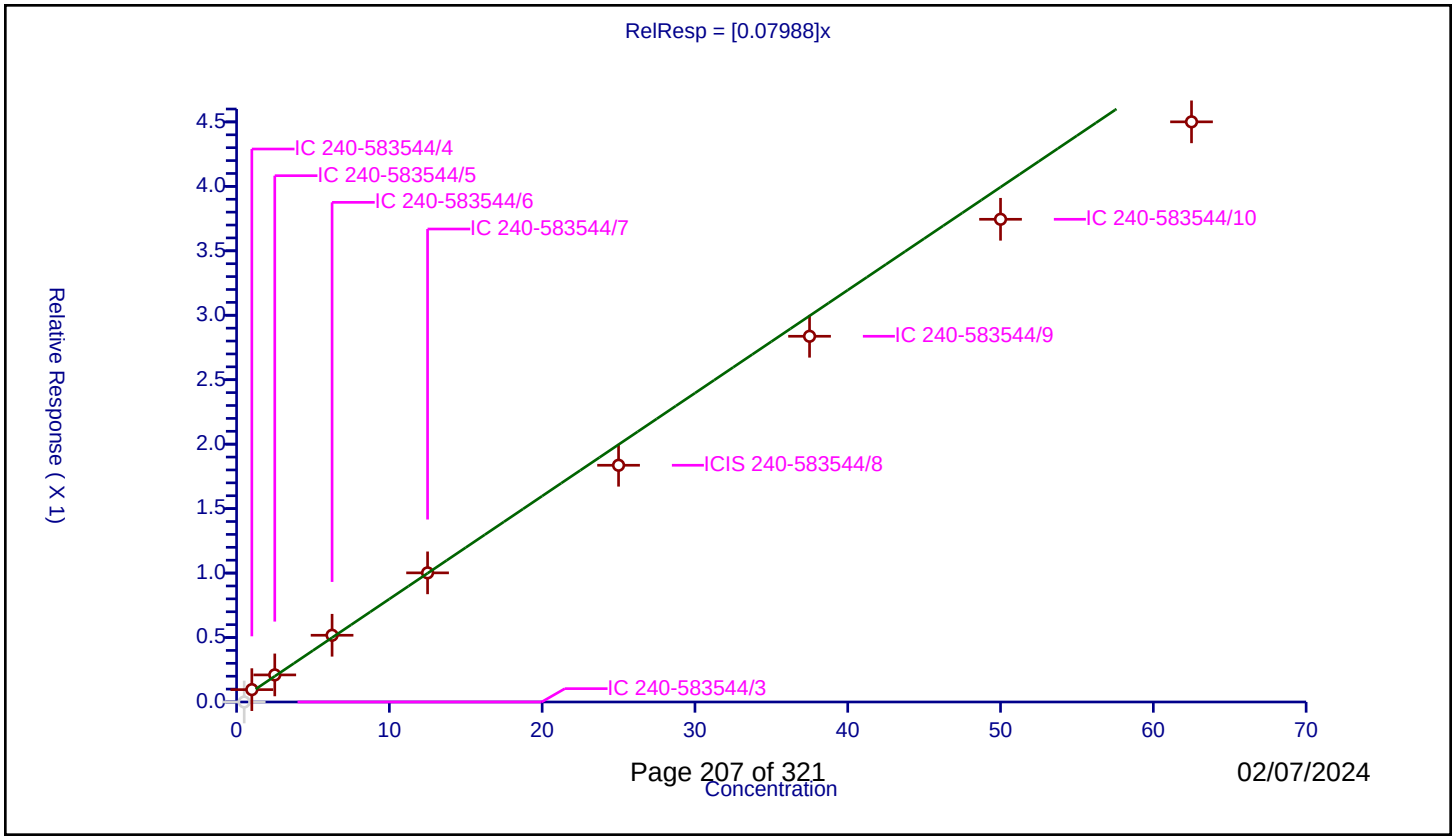
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.07988 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 170000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 1.0 | 0.095982 | 10.0 | 642201.0 | 0.095982 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.210153 | 10.0 | 641914.0 | 0.084061 | Y |
| 4 | IC 240-583544/6 | 6.25 | 0.51767 | 10.0 | 639577.0 | 0.082827 | Y |
| 5 | IC 240-583544/7 | 12.5 | 1.001699 | 10.0 | 646871.0 | 0.080136 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 1.836386 | 10.0 | 647489.0 | 0.073455 | Y |
| 7 | IC 240-583544/9 | 37.5 | 2.837003 | 10.0 | 663718.0 | 0.075653 | Y |
| 8 | IC 240-583544/10 | 50.0 | 3.744566 | 10.0 | 655128.0 | 0.074891 | Y |
| 9 | IC 240-583544/11 | 62.5 | 4.500488 | 10.0 | 651776.0 | 0.072008 | Y |



## Calibration / Chlorobromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

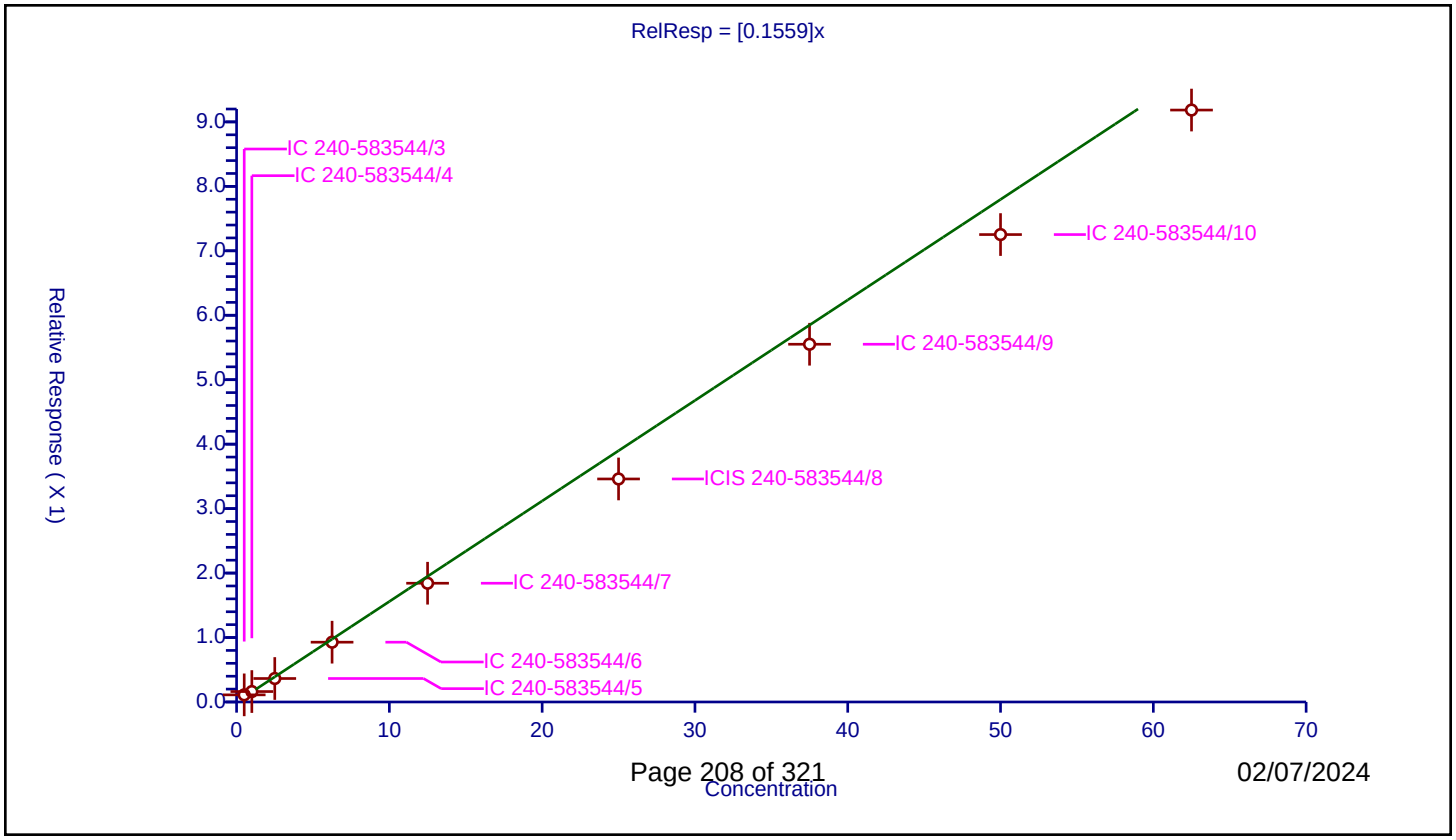
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1559 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 314000 |
| **Relative Standard Error:** | 16.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.959 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.110779 | 10.0 | 672601.0 | 0.221558 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.161865 | 10.0 | 642201.0 | 0.161865 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.364395 | 10.0 | 641914.0 | 0.145758 | Y |
| 4 | IC 240-583544/6 | 6.25 | 0.927691 | 10.0 | 639577.0 | 0.148431 | Y |
| 5 | IC 240-583544/7 | 12.5 | 1.842485 | 10.0 | 646871.0 | 0.147399 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 3.460368 | 10.0 | 647489.0 | 0.138415 | Y |
| 7 | IC 240-583544/9 | 37.5 | 5.55049 | 10.0 | 663718.0 | 0.148013 | Y |
| 8 | IC 240-583544/10 | 50.0 | 7.252171 | 10.0 | 655128.0 | 0.145043 | Y |
| 9 | IC 240-583544/11 | 62.5 | 9.183677 | 10.0 | 651776.0 | 0.146939 | Y |



## Calibration / Tetrahydrofuran

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

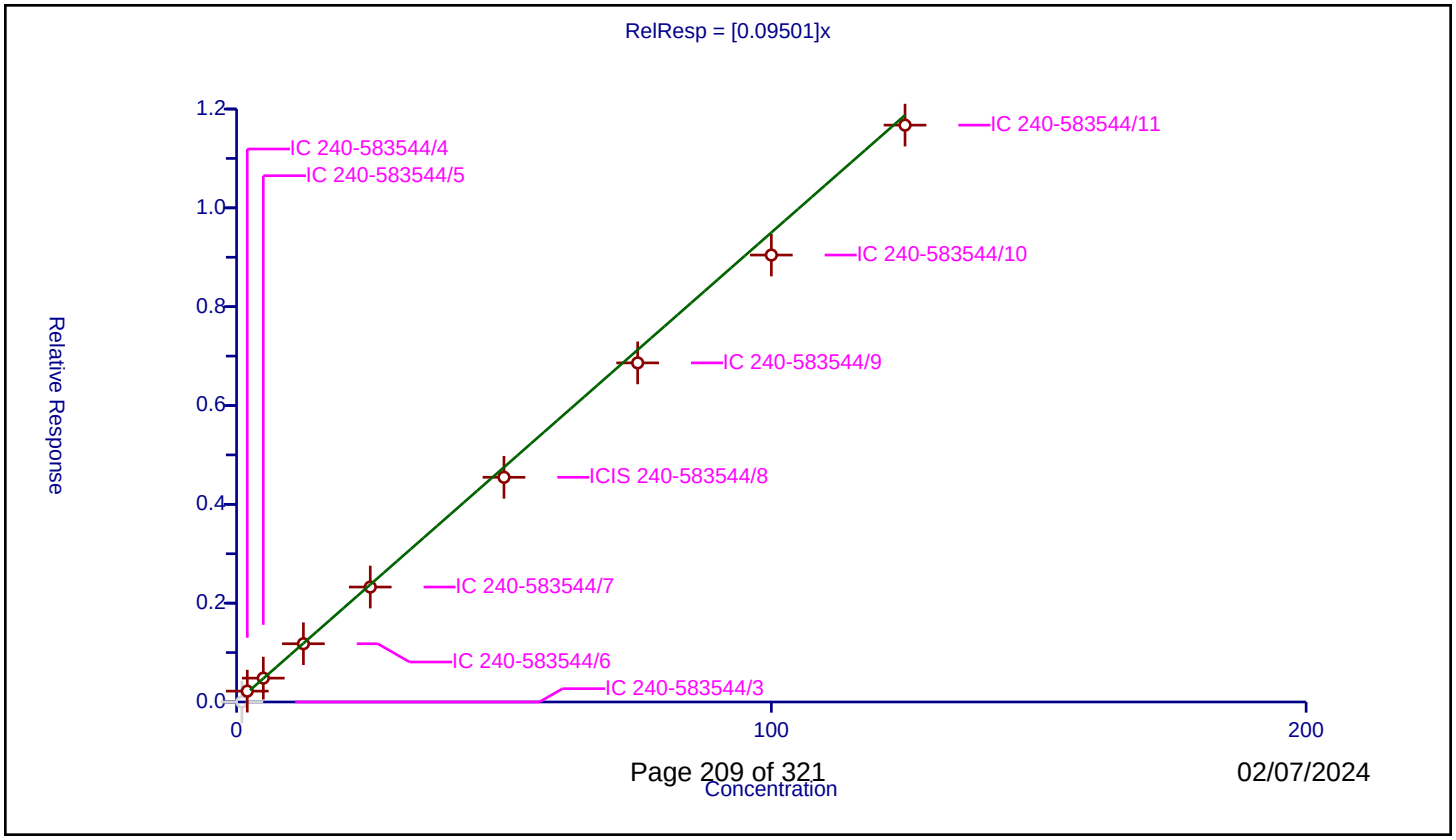
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.09501 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 423000 |
| **Relative Standard Error:** | 6.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 1.0 | 0.0 | 10.0 | 672601.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 2.0 | 0.2199 | 10.0 | 642201.0 | 0.10995 | Y |
| 3 | IC 240-583544/5 | 5.0 | 0.482541 | 10.0 | 641914.0 | 0.096508 | Y |
| 4 | IC 240-583544/6 | 12.5 | 1.178654 | 10.0 | 639577.0 | 0.094292 | Y |
| 5 | IC 240-583544/7 | 25.0 | 2.326012 | 10.0 | 646871.0 | 0.09304 | Y |
| 6 | ICIS 240-583544/8 | 50.0 | 4.547259 | 10.0 | 647489.0 | 0.090945 | Y |
| 7 | IC 240-583544/9 | 75.0 | 6.862674 | 10.0 | 663718.0 | 0.091502 | Y |
| 8 | IC 240-583544/10 | 100.0 | 9.044629 | 10.0 | 655128.0 | 0.090446 | Y |
| 9 | IC 240-583544/11 | 125.0 | 11.673857 | 10.0 | 651776.0 | 0.093391 | Y |



## Calibration / Chloroform

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

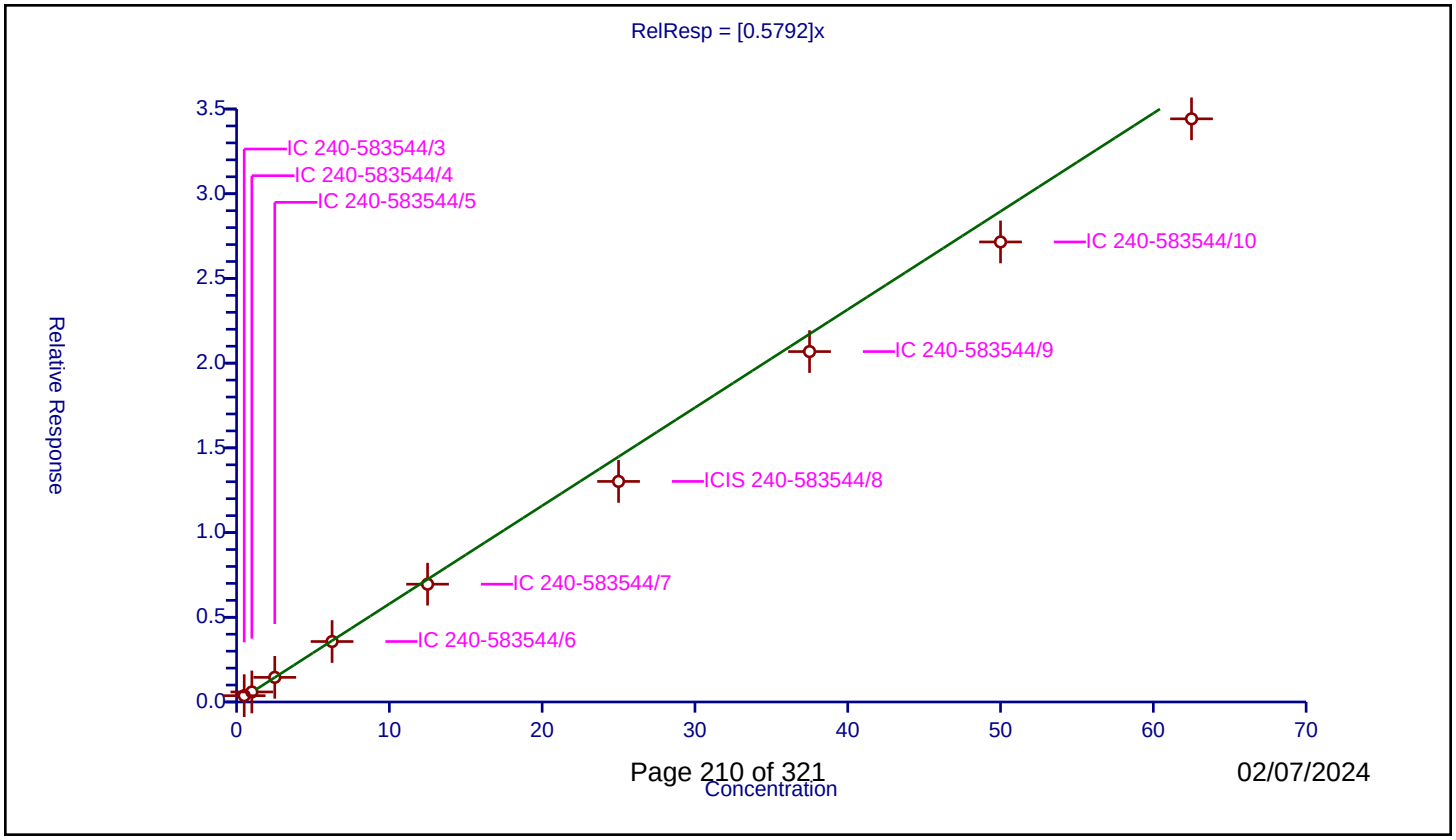
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5792 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1180000 |
| **Relative Standard Error:** | 11.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.981 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.372866 | 10.0 | 672601.0 | 0.745732 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.592011 | 10.0 | 642201.0 | 0.592011 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.452874 | 10.0 | 641914.0 | 0.581149 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.569437 | 10.0 | 639577.0 | 0.57111 | Y |
| 5 | IC 240-583544/7 | 12.5 | 6.95338 | 10.0 | 646871.0 | 0.55627 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 13.018569 | 10.0 | 647489.0 | 0.520743 | Y |
| 7 | IC 240-583544/9 | 37.5 | 20.683694 | 10.0 | 663718.0 | 0.551565 | Y |
| 8 | IC 240-583544/10 | 50.0 | 27.153472 | 10.0 | 655128.0 | 0.543069 | Y |
| 9 | IC 240-583544/11 | 62.5 | 34.420338 | 10.0 | 651776.0 | 0.550725 | Y |



## Calibration / Dibromofluoromethane (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

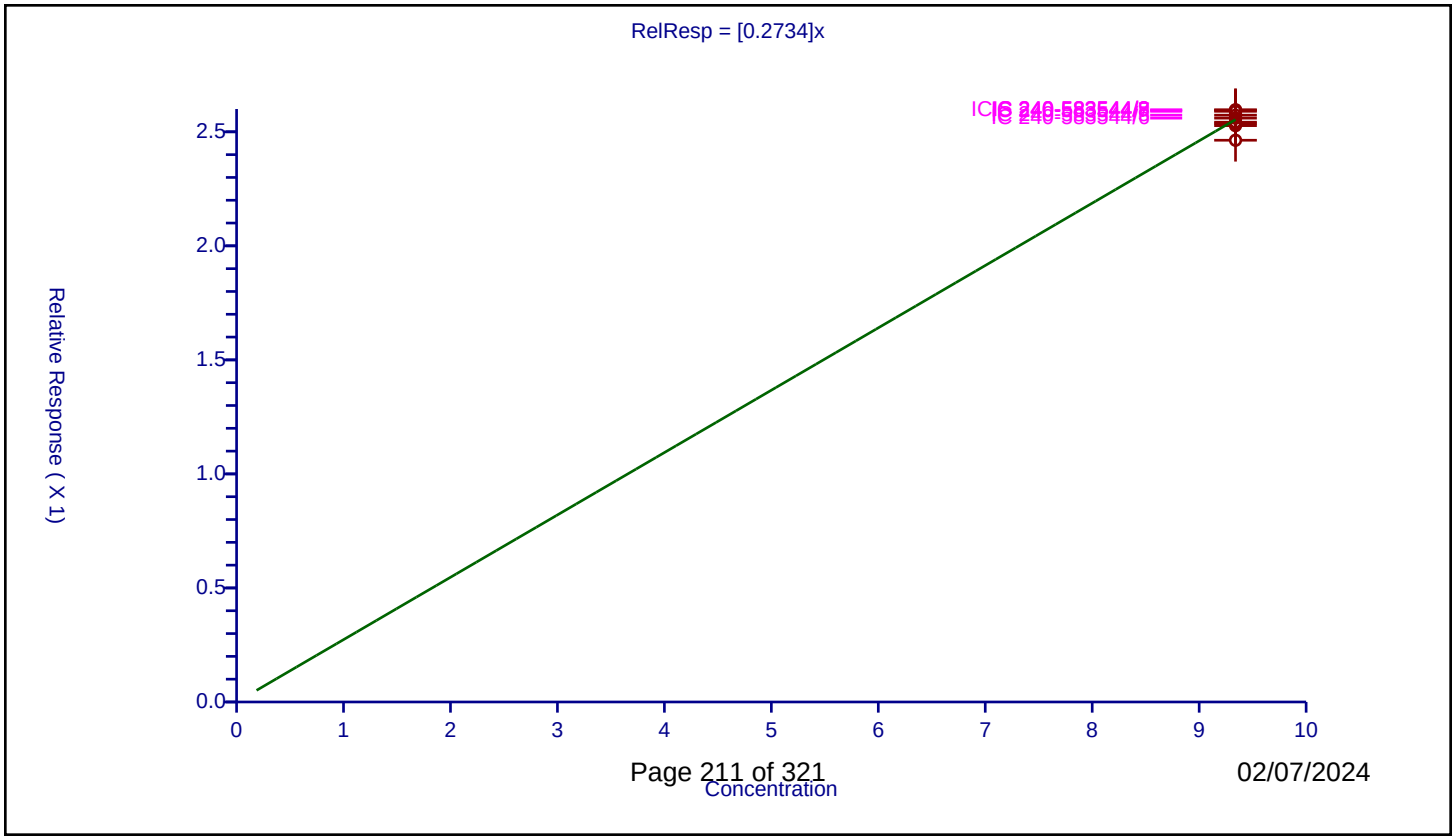
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2734 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 176000 |
| **Relative Standard Error:** | 1.7 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 9.34 | 2.46308 | 10.0 | 672601.0 | 0.263713 | Y |
| 2 | IC 240-583544/4 | 9.34 | 2.527075 | 10.0 | 642201.0 | 0.270565 | Y |
| 3 | IC 240-583544/5 | 9.34 | 2.573071 | 10.0 | 641914.0 | 0.275489 | Y |
| 4 | IC 240-583544/6 | 9.34 | 2.559848 | 10.0 | 639577.0 | 0.274074 | Y |
| 5 | IC 240-583544/7 | 9.34 | 2.58996 | 10.0 | 646871.0 | 0.277298 | Y |
| 6 | ICIS 240-583544/8 | 9.34 | 2.596785 | 10.0 | 647489.0 | 0.278028 | Y |
| 7 | IC 240-583544/9 | 9.34 | 2.59434 | 10.0 | 663718.0 | 0.277767 | Y |
| 8 | IC 240-583544/10 | 9.34 | 2.542205 | 10.0 | 655128.0 | 0.272185 | Y |
| 9 | IC 240-583544/11 | 9.34 | 2.535841 | 10.0 | 651776.0 | 0.271503 | Y |



## Calibration / 1,1,1-Trichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

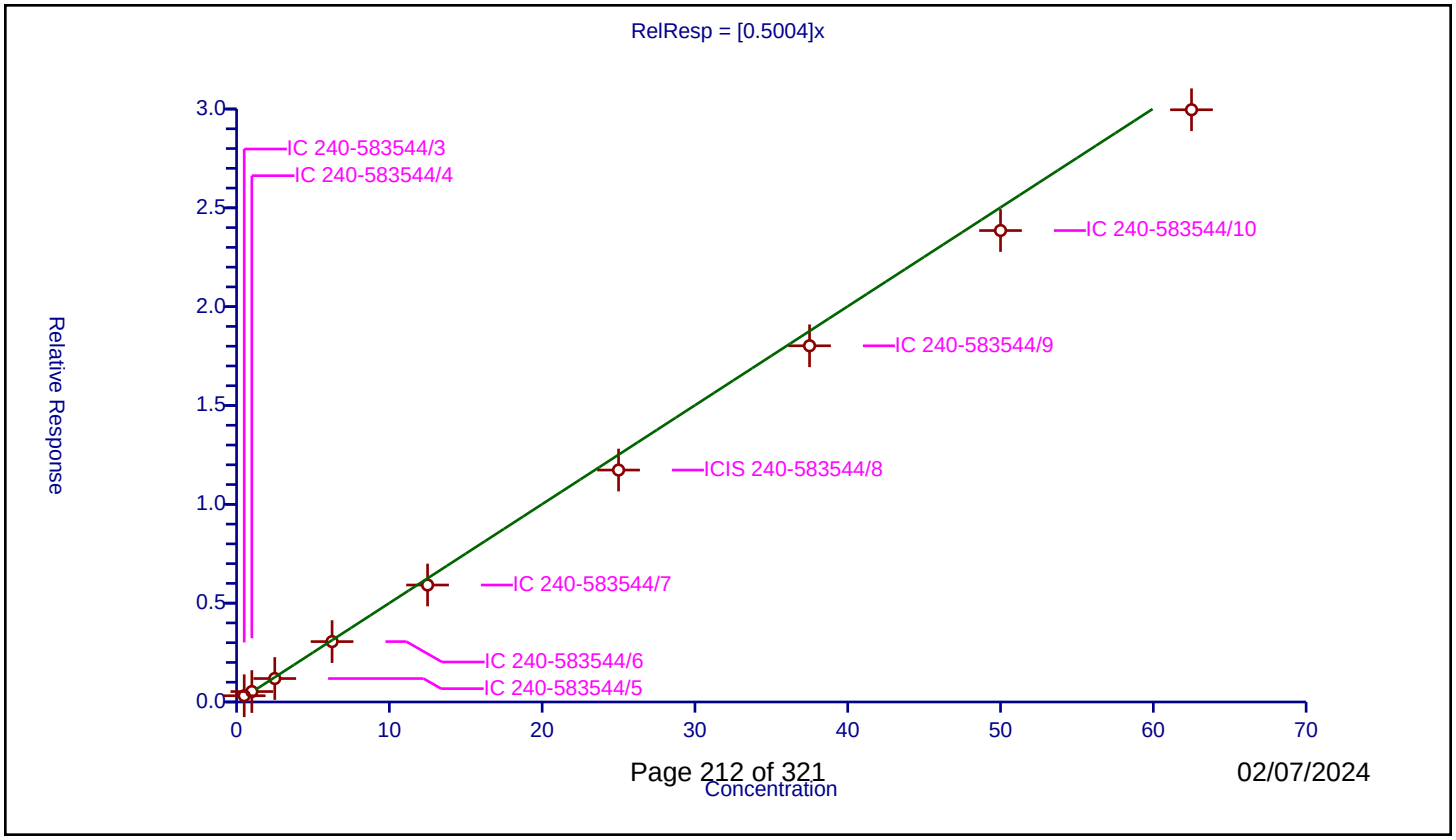
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5004 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1030000 |
| **Relative Standard Error:** | 10.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.984 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.316399 | 10.0 | 672601.0 | 0.632797 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.527701 | 10.0 | 642201.0 | 0.527701 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.186016 | 10.0 | 641914.0 | 0.474406 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.055754 | 10.0 | 639577.0 | 0.488921 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.917316 | 10.0 | 646871.0 | 0.473385 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 11.733898 | 10.0 | 647489.0 | 0.469356 | Y |
| 7 | IC 240-583544/9 | 37.5 | 18.021584 | 10.0 | 663718.0 | 0.480576 | Y |
| 8 | IC 240-583544/10 | 50.0 | 23.852102 | 10.0 | 655128.0 | 0.477042 | Y |
| 9 | IC 240-583544/11 | 62.5 | 29.962119 | 10.0 | 651776.0 | 0.479394 | Y |



## Calibration / Cyclohexane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

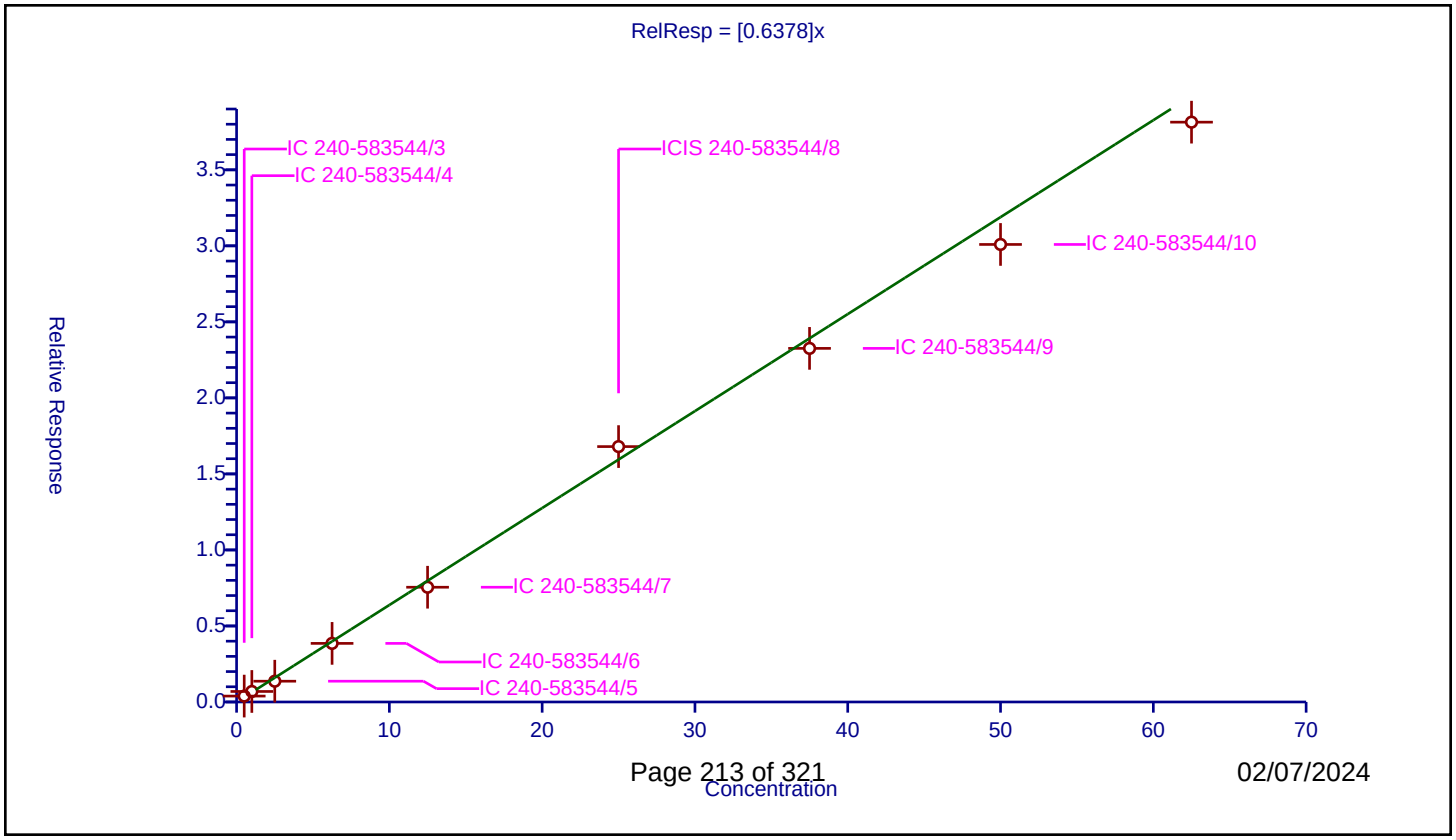
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6378 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1320000 |
| **Relative Standard Error:** | 10.4 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.387942 | 10.0 | 672601.0 | 0.775883 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.69212 | 10.0 | 642201.0 | 0.69212 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.367987 | 10.0 | 641914.0 | 0.547195 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.85436 | 10.0 | 639577.0 | 0.616698 | Y |
| 5 | IC 240-583544/7 | 12.5 | 7.547718 | 10.0 | 646871.0 | 0.603817 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 16.797289 | 10.0 | 647489.0 | 0.671892 | Y |
| 7 | IC 240-583544/9 | 37.5 | 23.257151 | 10.0 | 663718.0 | 0.620191 | Y |
| 8 | IC 240-583544/10 | 50.0 | 30.092608 | 10.0 | 655128.0 | 0.601852 | Y |
| 9 | IC 240-583544/11 | 62.5 | 38.134957 | 10.0 | 651776.0 | 0.610159 | Y |



## Calibration / Carbon tetrachloride

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

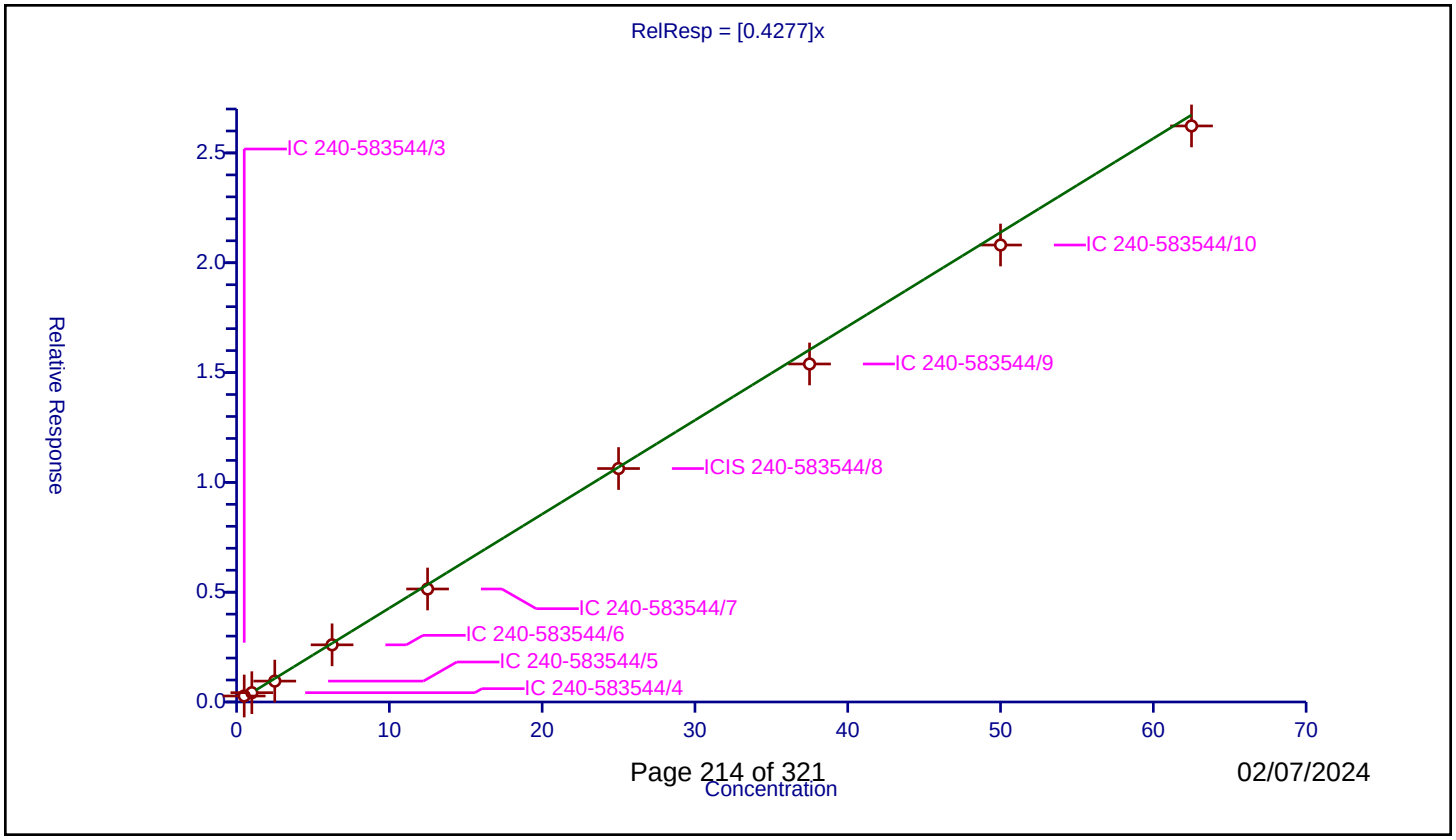
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4277 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 897000 |
| **Relative Standard Error:** | 10.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.984 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.272286 | 10.0 | 672601.0 | 0.544572 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.42426 | 10.0 | 642201.0 | 0.42426 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.951545 | 10.0 | 641914.0 | 0.380618 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.602236 | 10.0 | 639577.0 | 0.416358 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.145075 | 10.0 | 646871.0 | 0.411606 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 10.630157 | 10.0 | 647489.0 | 0.425206 | Y |
| 7 | IC 240-583544/9 | 37.5 | 15.390422 | 10.0 | 663718.0 | 0.410411 | Y |
| 8 | IC 240-583544/10 | 50.0 | 20.807781 | 10.0 | 655128.0 | 0.416156 | Y |
| 9 | IC 240-583544/11 | 62.5 | 26.229502 | 10.0 | 651776.0 | 0.419672 | Y |



## Calibration / 1,1-Dichloropropene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

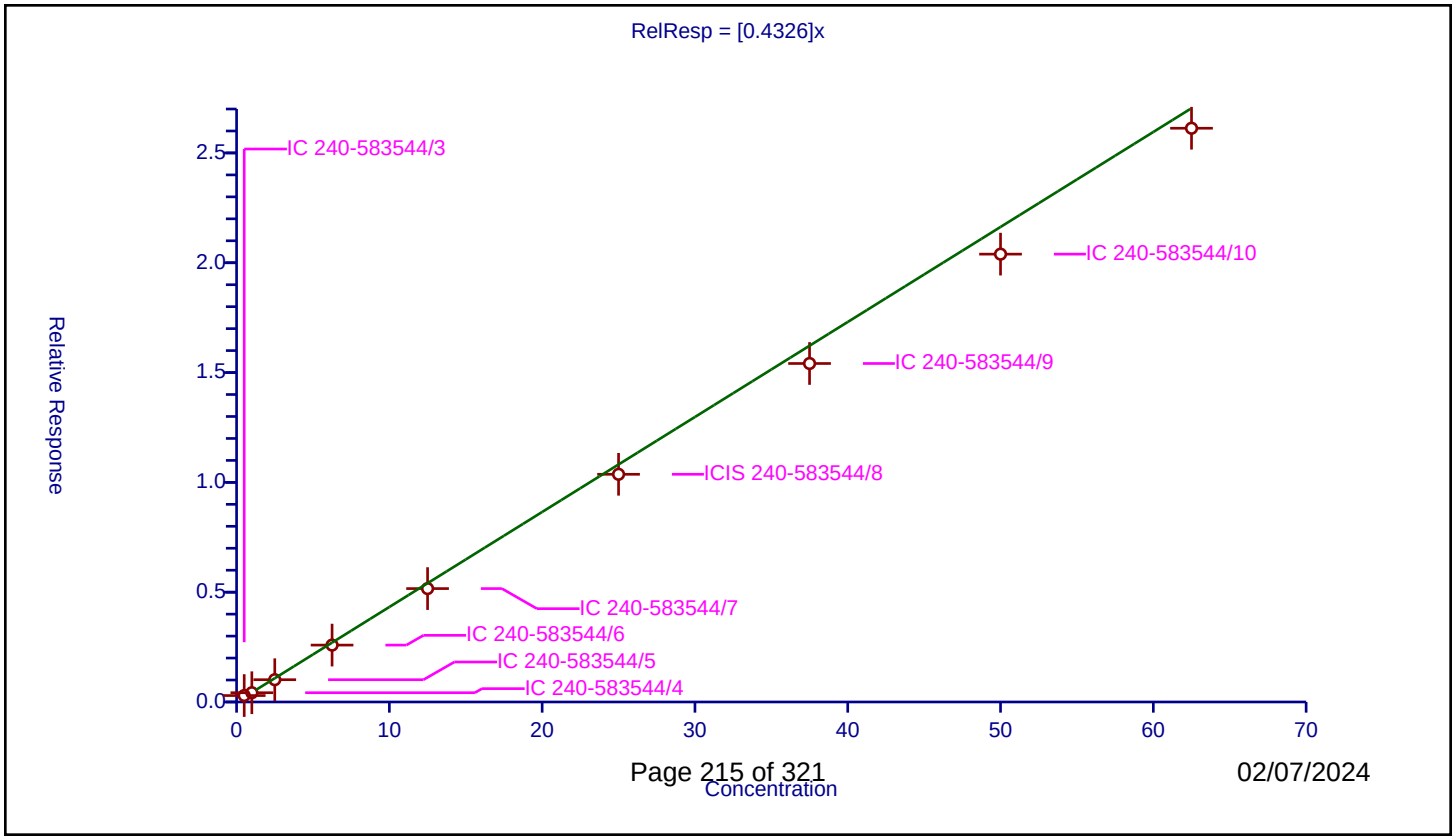
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4326 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 889000 |
| **Relative Standard Error:** | 13.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.974 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.292937 | 10.0 | 672601.0 | 0.585875 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.4225 | 10.0 | 642201.0 | 0.4225 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.014295 | 10.0 | 641914.0 | 0.405718 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.590243 | 10.0 | 639577.0 | 0.414439 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.164059 | 10.0 | 646871.0 | 0.413125 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 10.367914 | 10.0 | 647489.0 | 0.414717 | Y |
| 7 | IC 240-583544/9 | 37.5 | 15.41257 | 10.0 | 663718.0 | 0.411002 | Y |
| 8 | IC 240-583544/10 | 50.0 | 20.39261 | 10.0 | 655128.0 | 0.407852 | Y |
| 9 | IC 240-583544/11 | 62.5 | 26.124742 | 10.0 | 651776.0 | 0.417996 | Y |



## Calibration / Isobutyl alcohol

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

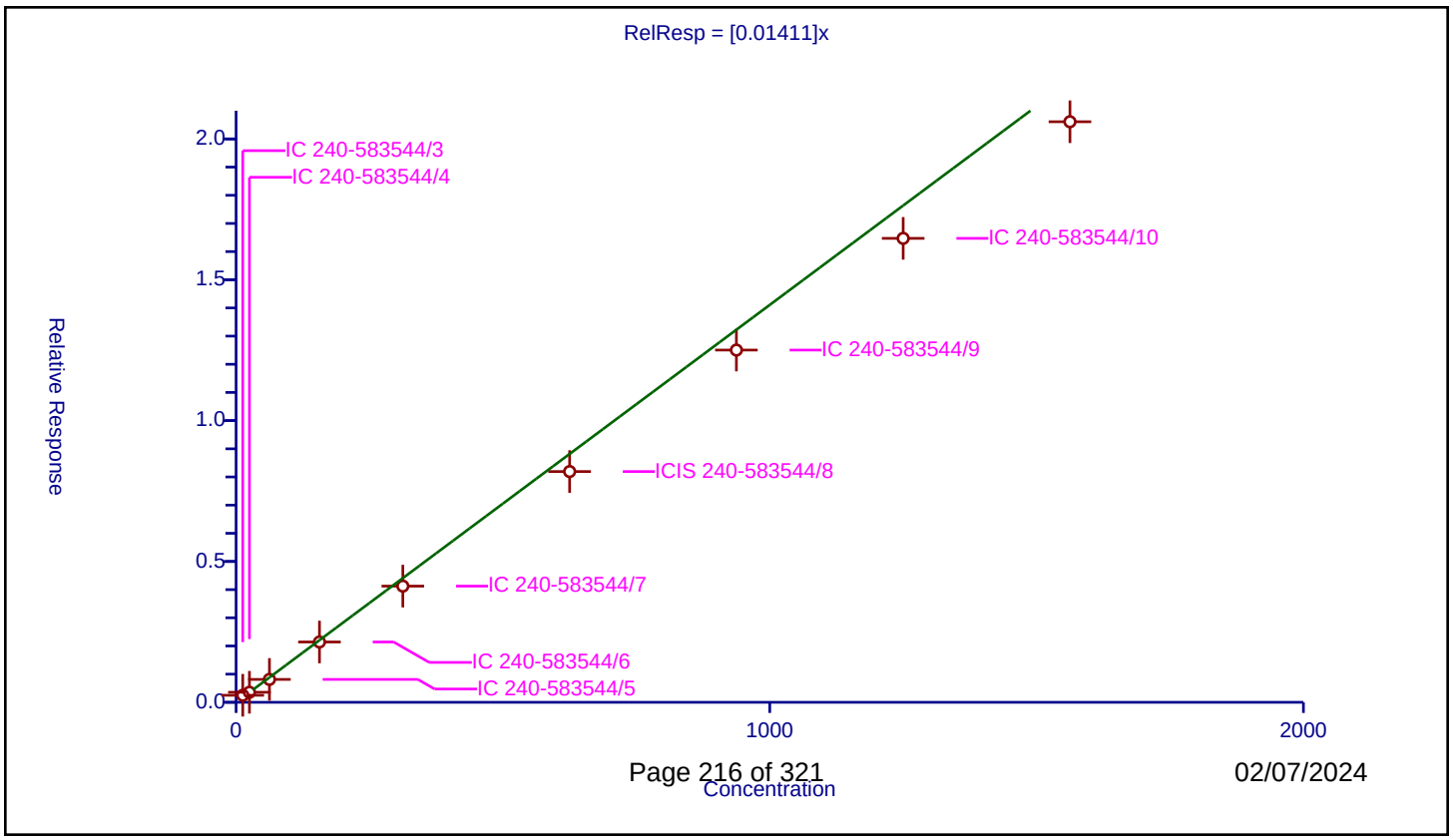
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.01411 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 558000 |
| **Relative Standard Error:** | 15.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.962 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 12.5 | 0.249744 | 10.0 | 525579.0 | 0.019979 | Y |
| 2 | IC 240-583544/4 | 25.0 | 0.356758 | 10.0 | 493500.0 | 0.01427 | Y |
| 3 | IC 240-583544/5 | 62.5 | 0.81294 | 10.0 | 501808.0 | 0.013007 | Y |
| 4 | IC 240-583544/6 | 156.25 | 2.141102 | 10.0 | 495642.0 | 0.013703 | Y |
| 5 | IC 240-583544/7 | 312.5 | 4.1251 | 10.0 | 508344.0 | 0.0132 | Y |
| 6 | ICIS 240-583544/8 | 625.0 | 8.192202 | 10.0 | 506622.0 | 0.013108 | Y |
| 7 | IC 240-583544/9 | 937.5 | 12.504033 | 10.0 | 510229.0 | 0.013338 | Y |
| 8 | IC 240-583544/10 | 1250.0 | 16.470093 | 10.0 | 521042.0 | 0.013176 | Y |
| 9 | IC 240-583544/11 | 1562.5 | 20.610345 | 10.0 | 512399.0 | 0.013191 | Y |



## Calibration / 1,2-Dichloroethane-d4 (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

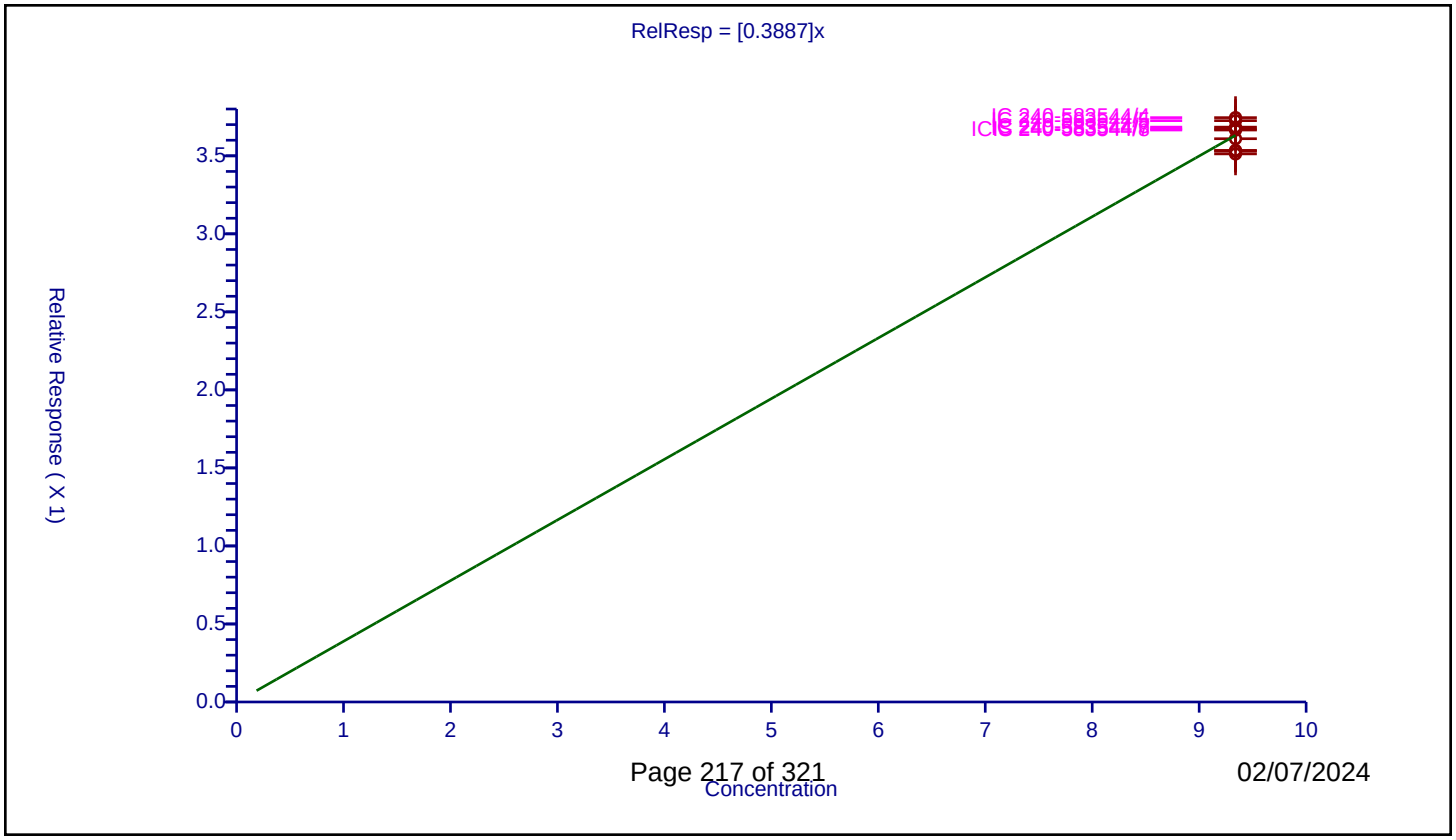
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3887 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 251000 |
| **Relative Standard Error:** | 2.4 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0.000000000000000111 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 9.34 | 3.609569 | 10.0 | 672601.0 | 0.386464 | Y |
| 2 | IC 240-583544/4 | 9.34 | 3.74484 | 10.0 | 642201.0 | 0.400946 | Y |
| 3 | IC 240-583544/5 | 9.34 | 3.725328 | 10.0 | 641914.0 | 0.398857 | Y |
| 4 | IC 240-583544/6 | 9.34 | 3.683997 | 10.0 | 639577.0 | 0.394432 | Y |
| 5 | IC 240-583544/7 | 9.34 | 3.671829 | 10.0 | 646871.0 | 0.393129 | Y |
| 6 | ICIS 240-583544/8 | 9.34 | 3.665329 | 10.0 | 647489.0 | 0.392433 | Y |
| 7 | IC 240-583544/9 | 9.34 | 3.512365 | 10.0 | 663718.0 | 0.376056 | Y |
| 8 | IC 240-583544/10 | 9.34 | 3.529799 | 10.0 | 655128.0 | 0.377923 | Y |
| 9 | IC 240-583544/11 | 9.34 | 3.535003 | 10.0 | 651776.0 | 0.37848 | Y |



## Calibration / Benzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

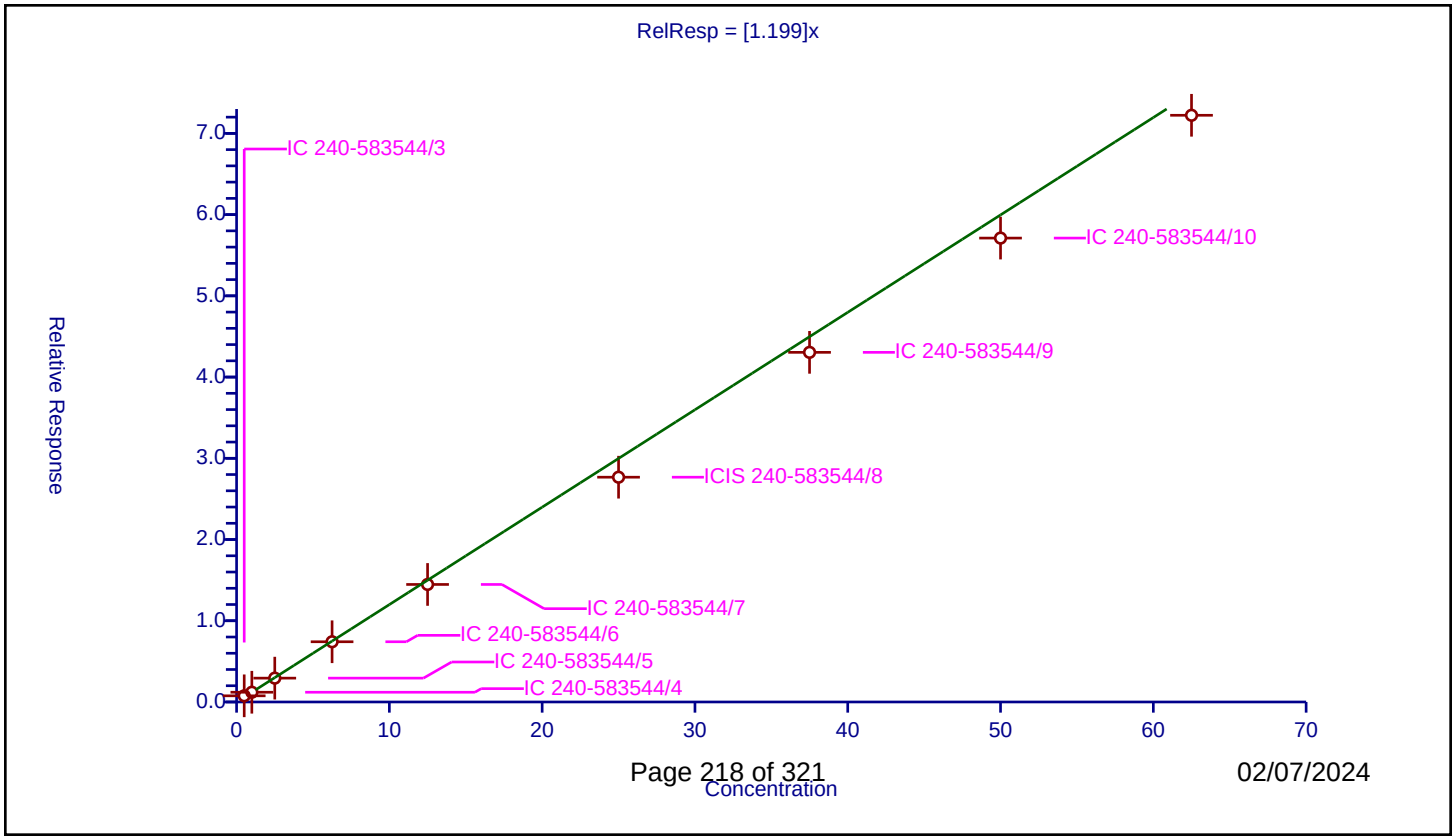
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.199 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2470000 |
| **Relative Standard Error:** | 10.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.761358 | 10.0 | 672601.0 | 1.522716 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.199033 | 10.0 | 642201.0 | 1.199033 | Y |
| 3 | IC 240-583544/5 | 2.5 | 2.936577 | 10.0 | 641914.0 | 1.174631 | Y |
| 4 | IC 240-583544/6 | 6.25 | 7.414322 | 10.0 | 639577.0 | 1.186292 | Y |
| 5 | IC 240-583544/7 | 12.5 | 14.469392 | 10.0 | 646871.0 | 1.157551 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 27.672748 | 10.0 | 647489.0 | 1.10691 | Y |
| 7 | IC 240-583544/9 | 37.5 | 43.043446 | 10.0 | 663718.0 | 1.147825 | Y |
| 8 | IC 240-583544/10 | 50.0 | 57.111603 | 10.0 | 655128.0 | 1.142232 | Y |
| 9 | IC 240-583544/11 | 62.5 | 72.228603 | 10.0 | 651776.0 | 1.155658 | Y |



## Calibration / 1,2-Dichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

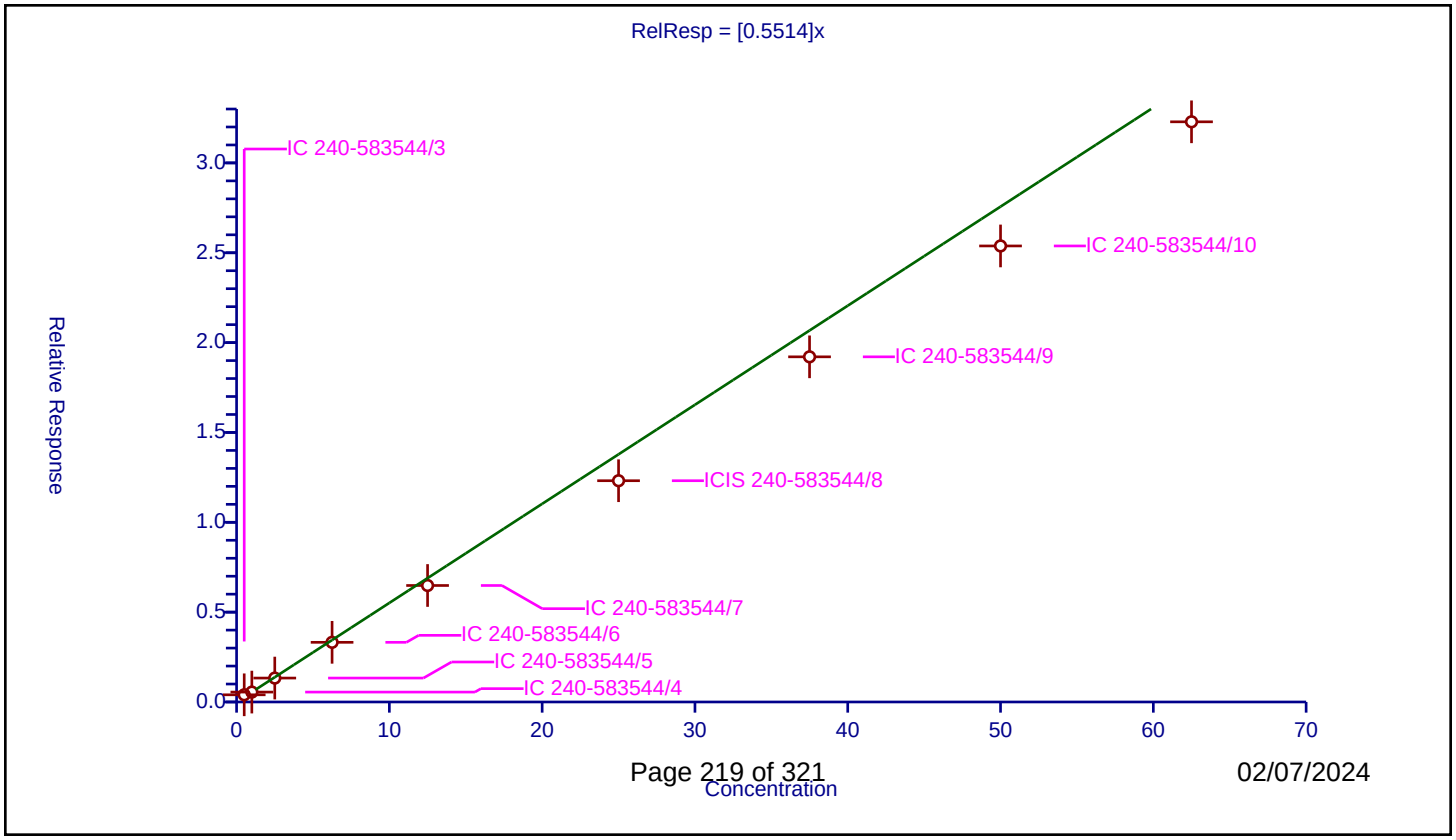
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5514 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1100000 |
| **Relative Standard Error:** | 17.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.954 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.400014 | 10.0 | 672601.0 | 0.800029 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.550824 | 10.0 | 642201.0 | 0.550824 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.331175 | 10.0 | 641914.0 | 0.53247 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.320398 | 10.0 | 639577.0 | 0.531264 | Y |
| 5 | IC 240-583544/7 | 12.5 | 6.482452 | 10.0 | 646871.0 | 0.518596 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 12.31414 | 10.0 | 647489.0 | 0.492566 | Y |
| 7 | IC 240-583544/9 | 37.5 | 19.208022 | 10.0 | 663718.0 | 0.512214 | Y |
| 8 | IC 240-583544/10 | 50.0 | 25.37988 | 10.0 | 655128.0 | 0.507598 | Y |
| 9 | IC 240-583544/11 | 62.5 | 32.288271 | 10.0 | 651776.0 | 0.516612 | Y |



## Calibration / n-Heptane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

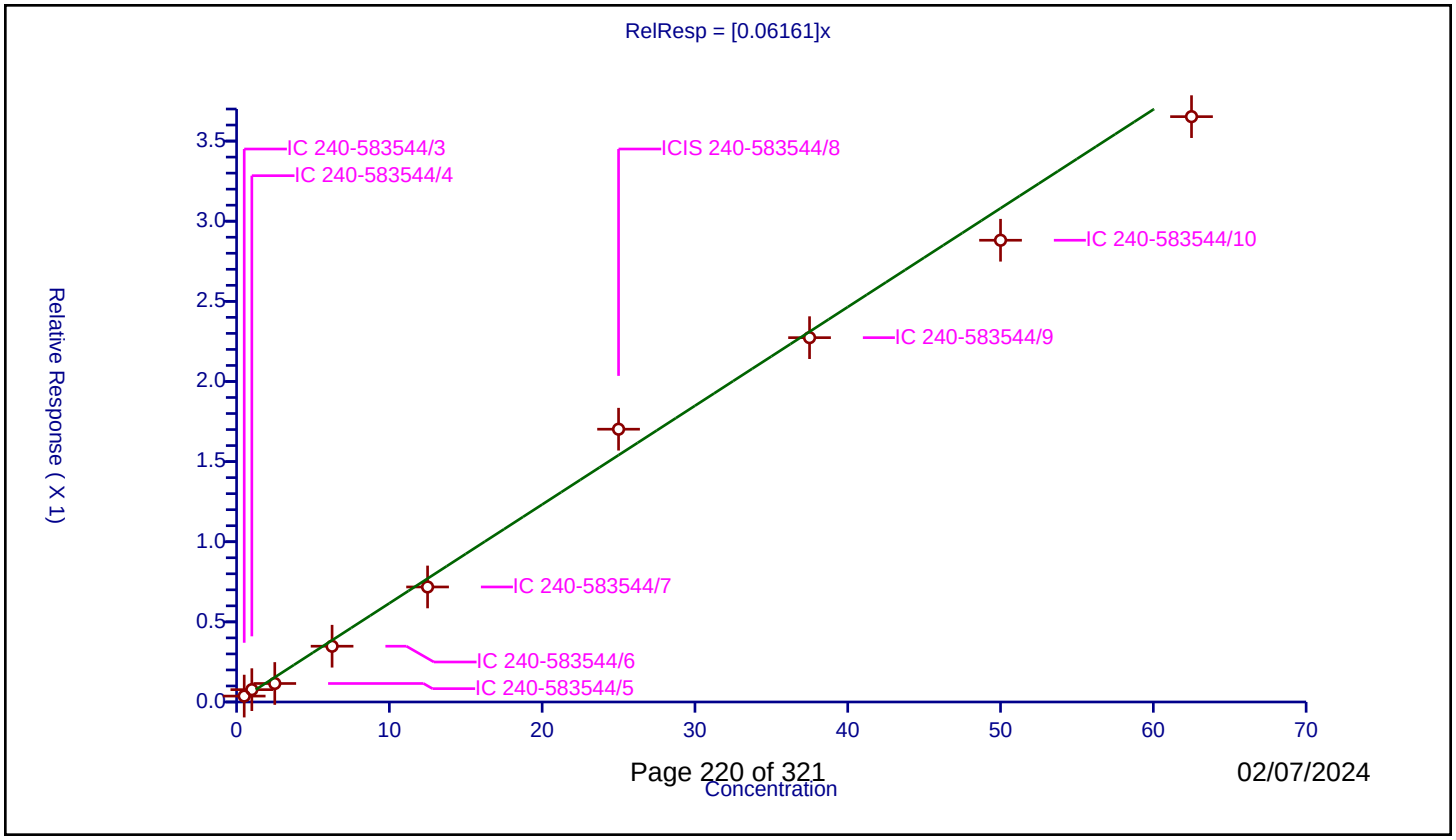
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.06161 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 127000 |
| **Relative Standard Error:** | 15.6 |
| **Correlation Coefficient:** | 0.996 |
| **Coefficient of Determination (Adjusted):** | 0.966 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.036783 | 10.0 | 672601.0 | 0.073565 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.076923 | 10.0 | 642201.0 | 0.076923 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.11542 | 10.0 | 641914.0 | 0.046168 | Y |
| 4 | IC 240-583544/6 | 6.25 | 0.347949 | 10.0 | 639577.0 | 0.055672 | Y |
| 5 | IC 240-583544/7 | 12.5 | 0.717701 | 10.0 | 646871.0 | 0.057416 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 1.702191 | 10.0 | 647489.0 | 0.068088 | Y |
| 7 | IC 240-583544/9 | 37.5 | 2.27327 | 10.0 | 663718.0 | 0.060621 | Y |
| 8 | IC 240-583544/10 | 50.0 | 2.881254 | 10.0 | 655128.0 | 0.057625 | Y |
| 9 | IC 240-583544/11 | 62.5 | 3.652328 | 10.0 | 651776.0 | 0.058437 | Y |



## Calibration / Trichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

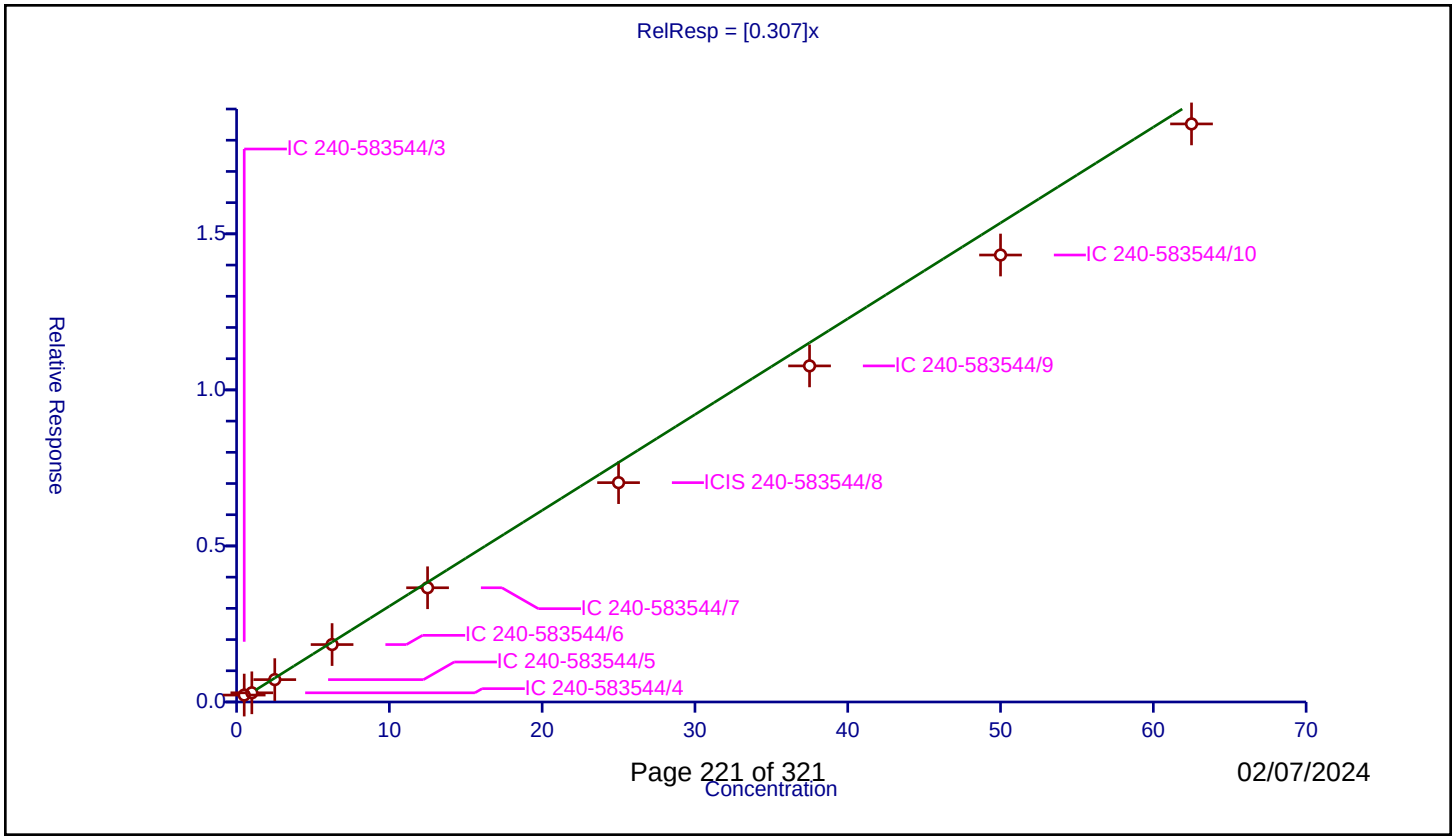
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.307 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 625000 |
| **Relative Standard Error:** | 16.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.957 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.221573 | 10.0 | 672601.0 | 0.443145 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.29469 | 10.0 | 642201.0 | 0.29469 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.716669 | 10.0 | 641914.0 | 0.286668 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.840466 | 10.0 | 639577.0 | 0.294475 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.65988 | 10.0 | 646871.0 | 0.29279 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 7.028675 | 10.0 | 647489.0 | 0.281147 | Y |
| 7 | IC 240-583544/9 | 37.5 | 10.769122 | 10.0 | 663718.0 | 0.287177 | Y |
| 8 | IC 240-583544/10 | 50.0 | 14.321552 | 10.0 | 655128.0 | 0.286431 | Y |
| 9 | IC 240-583544/11 | 62.5 | 18.522667 | 10.0 | 651776.0 | 0.296363 | Y |



## Calibration / Methylcyclohexane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

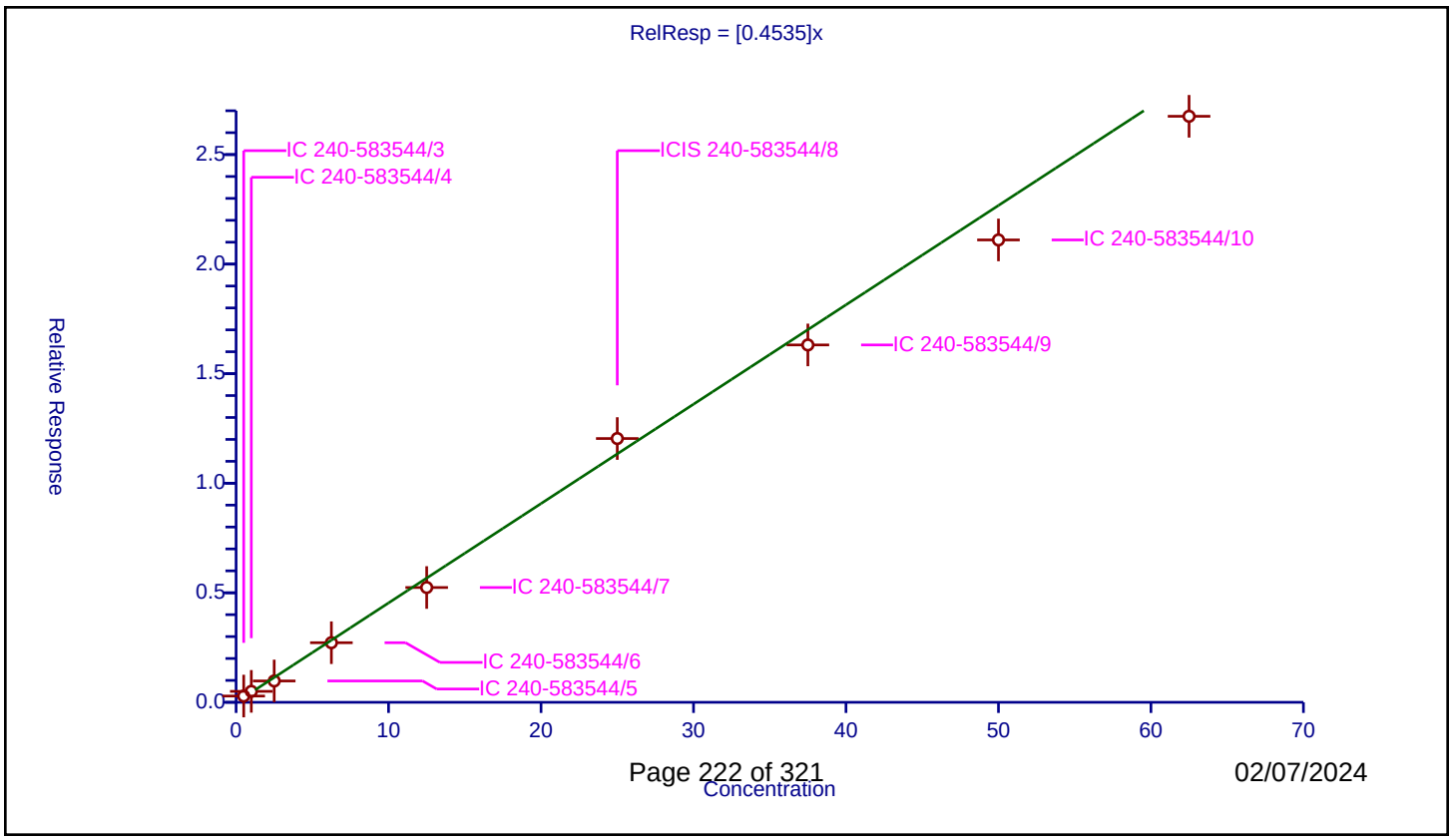
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4535 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 927000 |
| **Relative Standard Error:** | 12.1 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.285444 | 10.0 | 672601.0 | 0.570888 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.499999 | 10.0 | 642201.0 | 0.499999 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.974726 | 10.0 | 641914.0 | 0.38989 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.721048 | 10.0 | 639577.0 | 0.435368 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.239654 | 10.0 | 646871.0 | 0.419172 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 12.039556 | 10.0 | 647489.0 | 0.481582 | Y |
| 7 | IC 240-583544/9 | 37.5 | 16.310677 | 10.0 | 663718.0 | 0.434951 | Y |
| 8 | IC 240-583544/10 | 50.0 | 21.104151 | 10.0 | 655128.0 | 0.422083 | Y |
| 9 | IC 240-583544/11 | 62.5 | 26.747456 | 10.0 | 651776.0 | 0.427959 | Y |



## Calibration / 1,2-Dichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

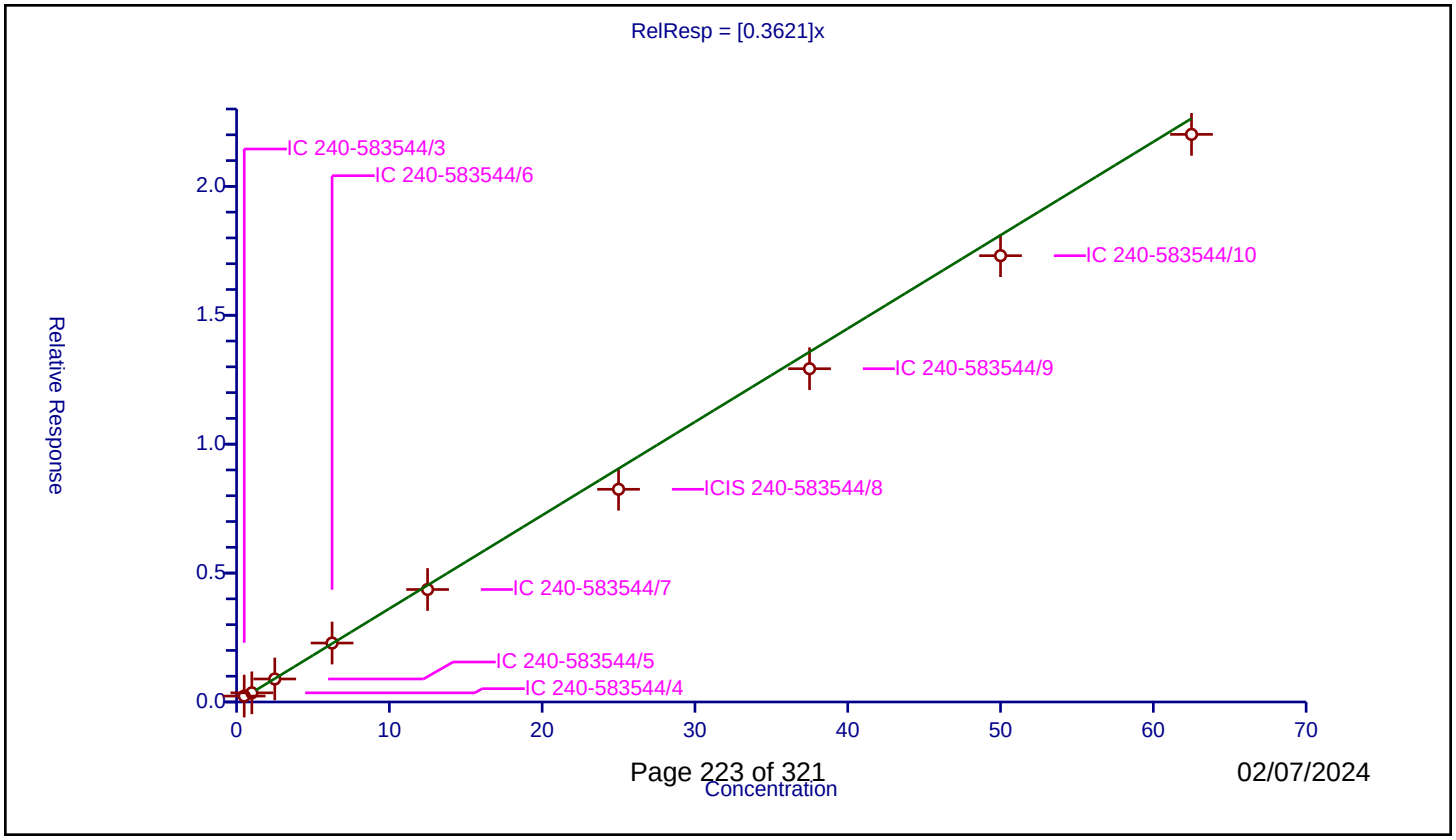
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3621 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 748000 |
| **Relative Standard Error:** | 10.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.229259 | 10.0 | 672601.0 | 0.458518 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.355294 | 10.0 | 642201.0 | 0.355294 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.892565 | 10.0 | 641914.0 | 0.357026 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.286746 | 10.0 | 639577.0 | 0.365879 | Y |
| 5 | IC 240-583544/7 | 12.5 | 4.363575 | 10.0 | 646871.0 | 0.349086 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 8.25004 | 10.0 | 647489.0 | 0.330002 | Y |
| 7 | IC 240-583544/9 | 37.5 | 12.926454 | 10.0 | 663718.0 | 0.344705 | Y |
| 8 | IC 240-583544/10 | 50.0 | 17.310724 | 10.0 | 655128.0 | 0.346214 | Y |
| 9 | IC 240-583544/11 | 62.5 | 22.016766 | 10.0 | 651776.0 | 0.352268 | Y |



## Calibration / 1,4-Dioxane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

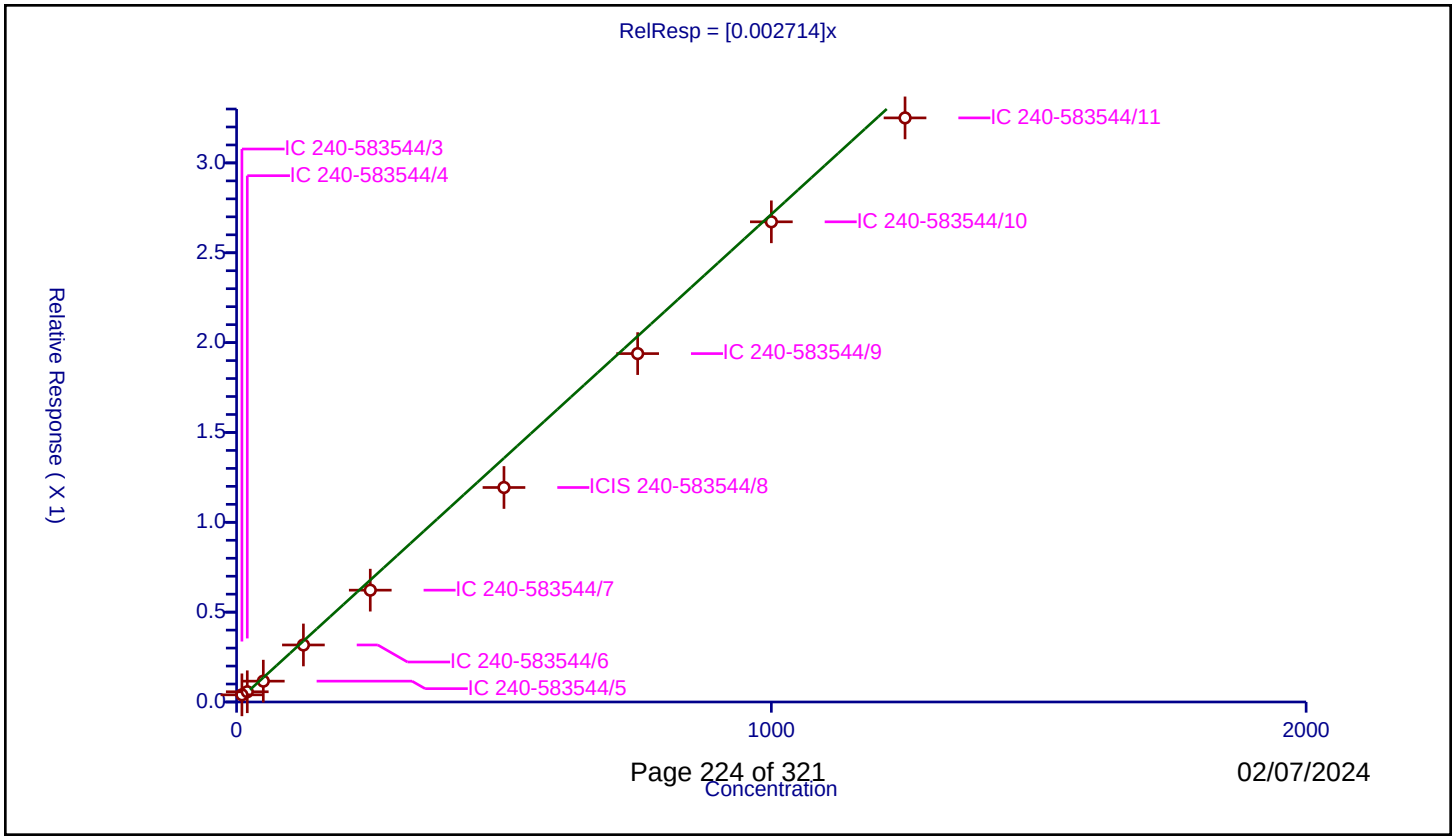
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.002714 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 112000 |
| **Relative Standard Error:** | 18.5 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.947 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 10.0 | 0.039875 | 10.0 | 672601.0 | 0.003988 | Y |
| 2 | IC 240-583544/4 | 20.0 | 0.056945 | 10.0 | 642201.0 | 0.002847 | Y |
| 3 | IC 240-583544/5 | 50.0 | 0.116044 | 10.0 | 641914.0 | 0.002321 | Y |
| 4 | IC 240-583544/6 | 125.0 | 0.317288 | 10.0 | 639577.0 | 0.002538 | Y |
| 5 | IC 240-583544/7 | 250.0 | 0.622319 | 10.0 | 646871.0 | 0.002489 | Y |
| 6 | ICIS 240-583544/8 | 500.0 | 1.193704 | 10.0 | 647489.0 | 0.002387 | Y |
| 7 | IC 240-583544/9 | 750.0 | 1.938835 | 10.0 | 663718.0 | 0.002585 | Y |
| 8 | IC 240-583544/10 | 1000.0 | 2.672302 | 10.0 | 655128.0 | 0.002672 | Y |
| 9 | IC 240-583544/11 | 1250.0 | 3.250565 | 10.0 | 651776.0 | 0.0026 | Y |



## Calibration / Dibromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

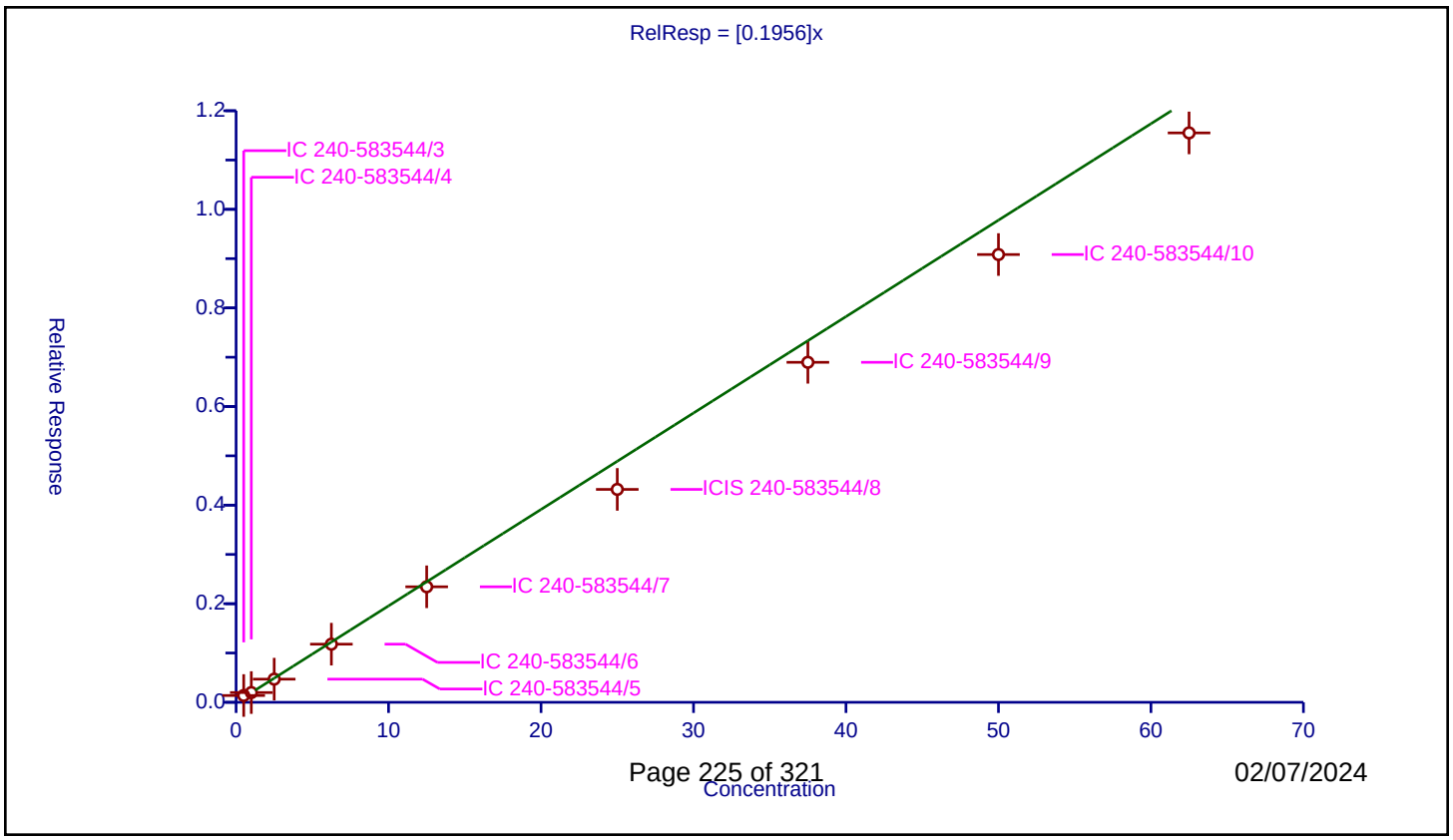
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1956 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 393000 |
| **Relative Standard Error:** | 15.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.962 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.137779 | 10.0 | 672601.0 | 0.275557 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.197571 | 10.0 | 642201.0 | 0.197571 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.469954 | 10.0 | 641914.0 | 0.187982 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.179498 | 10.0 | 639577.0 | 0.18872 | Y |
| 5 | IC 240-583544/7 | 12.5 | 2.343558 | 10.0 | 646871.0 | 0.187485 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 4.319039 | 10.0 | 647489.0 | 0.172762 | Y |
| 7 | IC 240-583544/9 | 37.5 | 6.896769 | 10.0 | 663718.0 | 0.183914 | Y |
| 8 | IC 240-583544/10 | 50.0 | 9.083294 | 10.0 | 655128.0 | 0.181666 | Y |
| 9 | IC 240-583544/11 | 62.5 | 11.550625 | 10.0 | 651776.0 | 0.18481 | Y |



## Calibration / Dichlorobromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

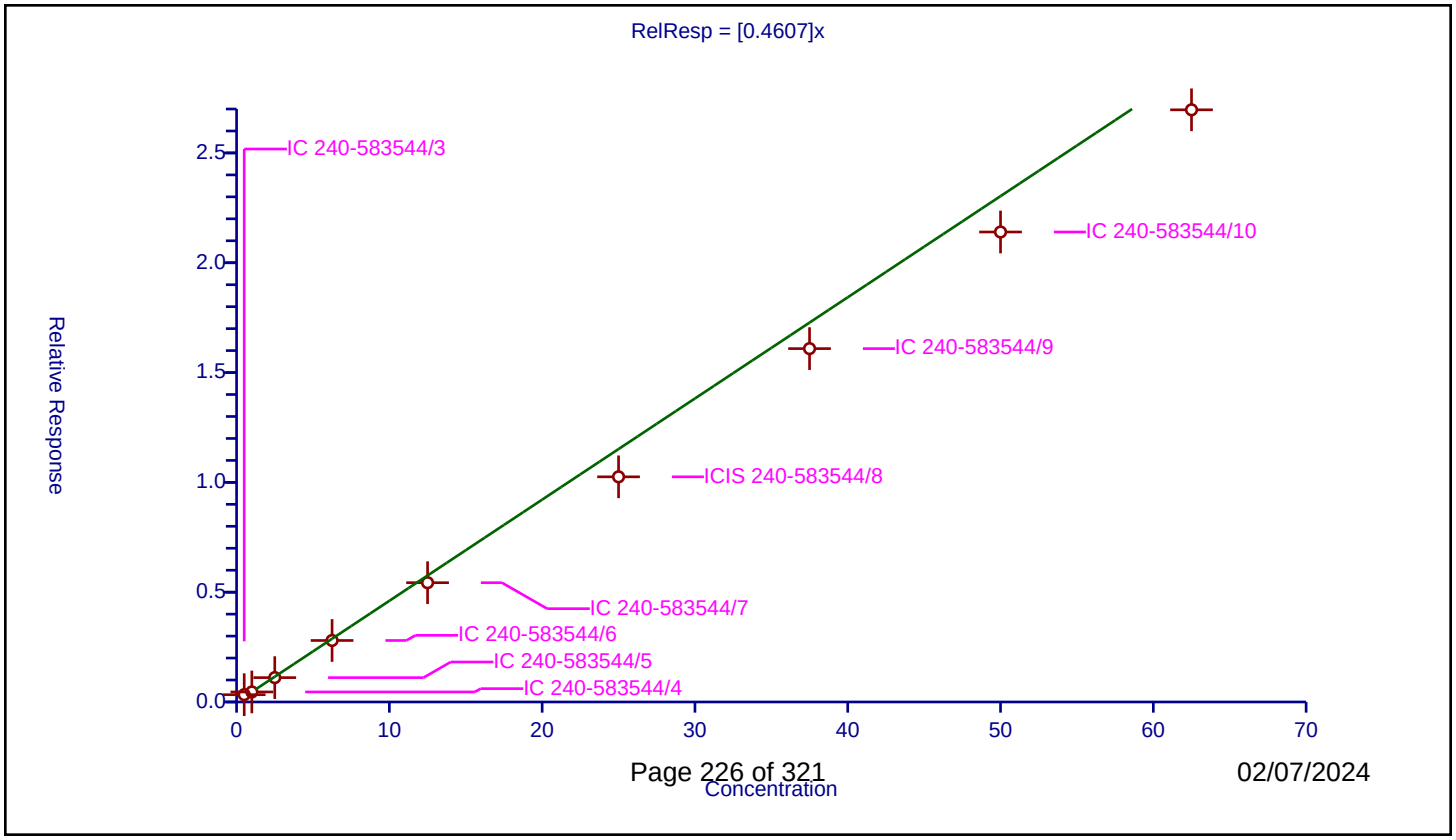
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4607 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 922000 |
| **Relative Standard Error:** | 16.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.956 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.331965 | 10.0 | 672601.0 | 0.66393 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.457271 | 10.0 | 642201.0 | 0.457271 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.108902 | 10.0 | 641914.0 | 0.443561 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.800523 | 10.0 | 639577.0 | 0.448084 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.431469 | 10.0 | 646871.0 | 0.434518 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 10.252329 | 10.0 | 647489.0 | 0.410093 | Y |
| 7 | IC 240-583544/9 | 37.5 | 16.09078 | 10.0 | 663718.0 | 0.429087 | Y |
| 8 | IC 240-583544/10 | 50.0 | 21.399589 | 10.0 | 655128.0 | 0.427992 | Y |
| 9 | IC 240-583544/11 | 62.5 | 26.963834 | 10.0 | 651776.0 | 0.431421 | Y |



## Calibration / 2-Chloroethyl vinyl ether

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

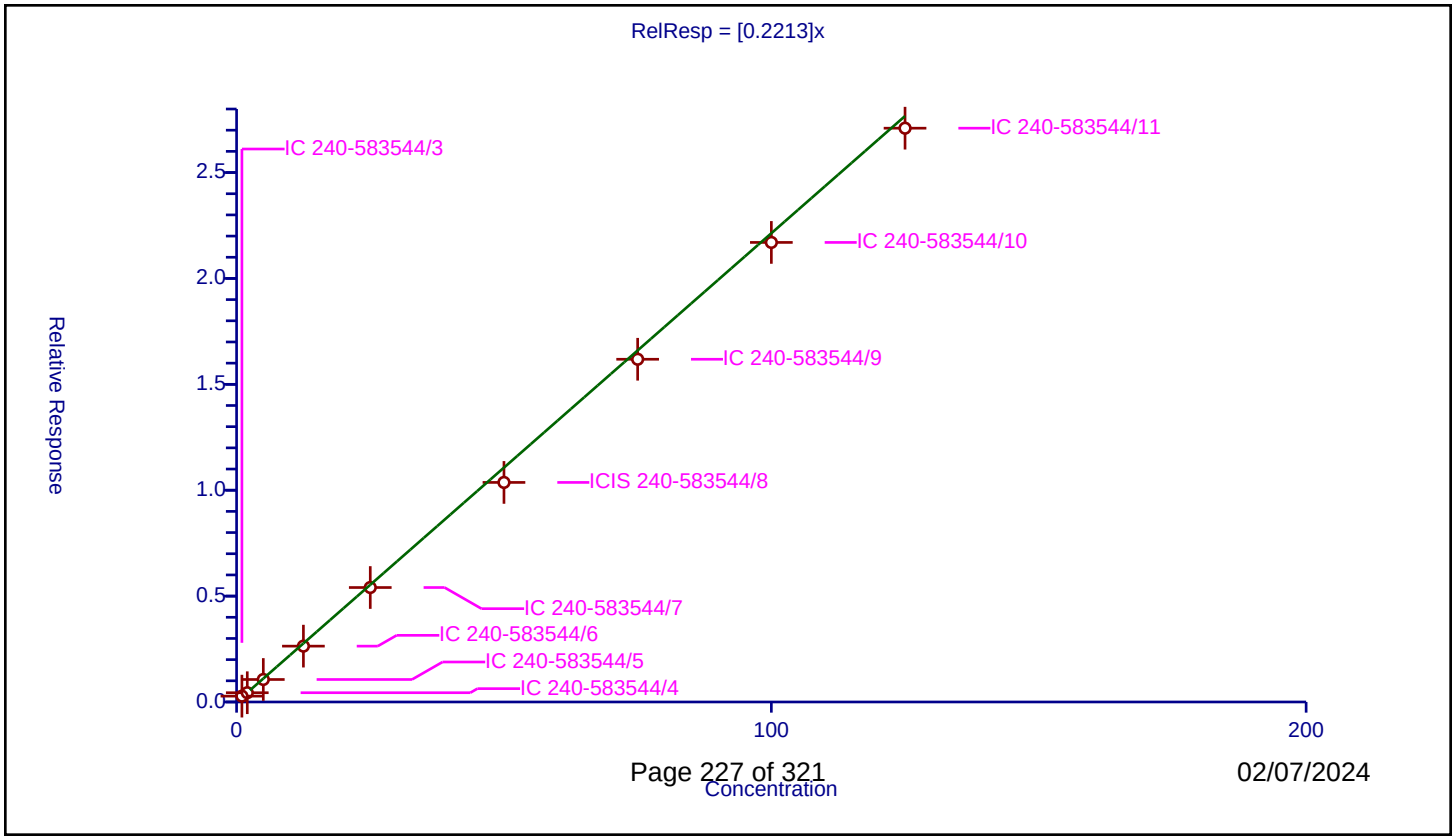
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2213 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 929000 |
| **Relative Standard Error:** | 9.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 1.0 | 0.276598 | 10.0 | 672601.0 | 0.276598 | Y |
| 2 | IC 240-583544/4 | 2.0 | 0.437713 | 10.0 | 642201.0 | 0.218857 | Y |
| 3 | IC 240-583544/5 | 5.0 | 1.062526 | 10.0 | 641914.0 | 0.212505 | Y |
| 4 | IC 240-583544/6 | 12.5 | 2.636993 | 10.0 | 639577.0 | 0.210959 | Y |
| 5 | IC 240-583544/7 | 25.0 | 5.405684 | 10.0 | 646871.0 | 0.216227 | Y |
| 6 | ICIS 240-583544/8 | 50.0 | 10.36708 | 10.0 | 647489.0 | 0.207342 | Y |
| 7 | IC 240-583544/9 | 75.0 | 16.184087 | 10.0 | 663718.0 | 0.215788 | Y |
| 8 | IC 240-583544/10 | 100.0 | 21.700004 | 10.0 | 655128.0 | 0.217 | Y |
| 9 | IC 240-583544/11 | 125.0 | 27.095076 | 10.0 | 651776.0 | 0.216761 | Y |



## Calibration / cis-1,3-Dichloropropene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

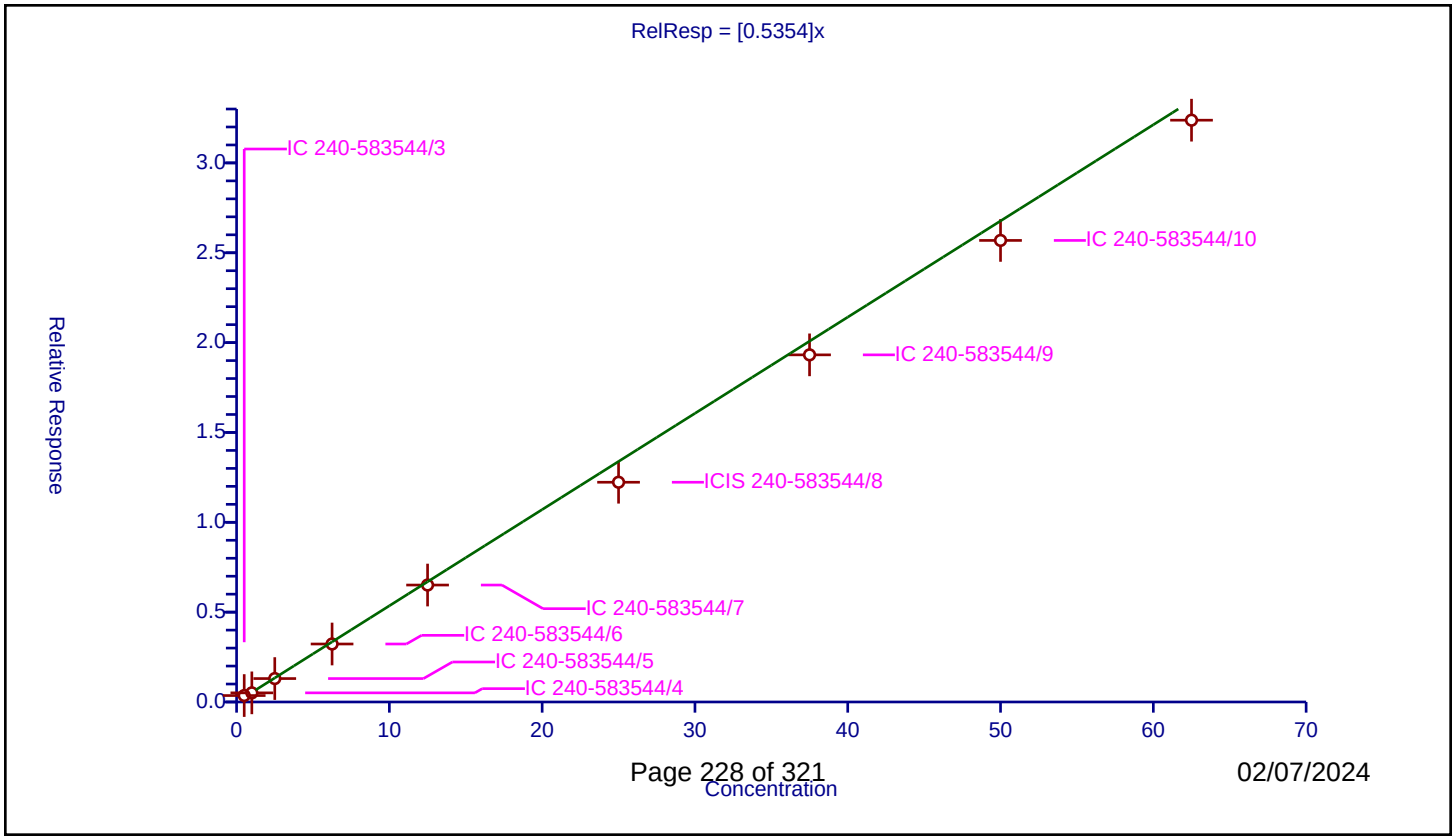
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5354 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1110000 |
| **Relative Standard Error:** | 12.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.976 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.357864 | 10.0 | 672601.0 | 0.715729 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.508564 | 10.0 | 642201.0 | 0.508564 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.30329 | 10.0 | 641914.0 | 0.521316 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.227149 | 10.0 | 639577.0 | 0.516344 | Y |
| 5 | IC 240-583544/7 | 12.5 | 6.507681 | 10.0 | 646871.0 | 0.520614 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 12.229968 | 10.0 | 647489.0 | 0.489199 | Y |
| 7 | IC 240-583544/9 | 37.5 | 19.319274 | 10.0 | 663718.0 | 0.515181 | Y |
| 8 | IC 240-583544/10 | 50.0 | 25.68698 | 10.0 | 655128.0 | 0.51374 | Y |
| 9 | IC 240-583544/11 | 62.5 | 32.37821 | 10.0 | 651776.0 | 0.518051 | Y |



## Calibration / 4-Methyl-2-pentanone (MIBK)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

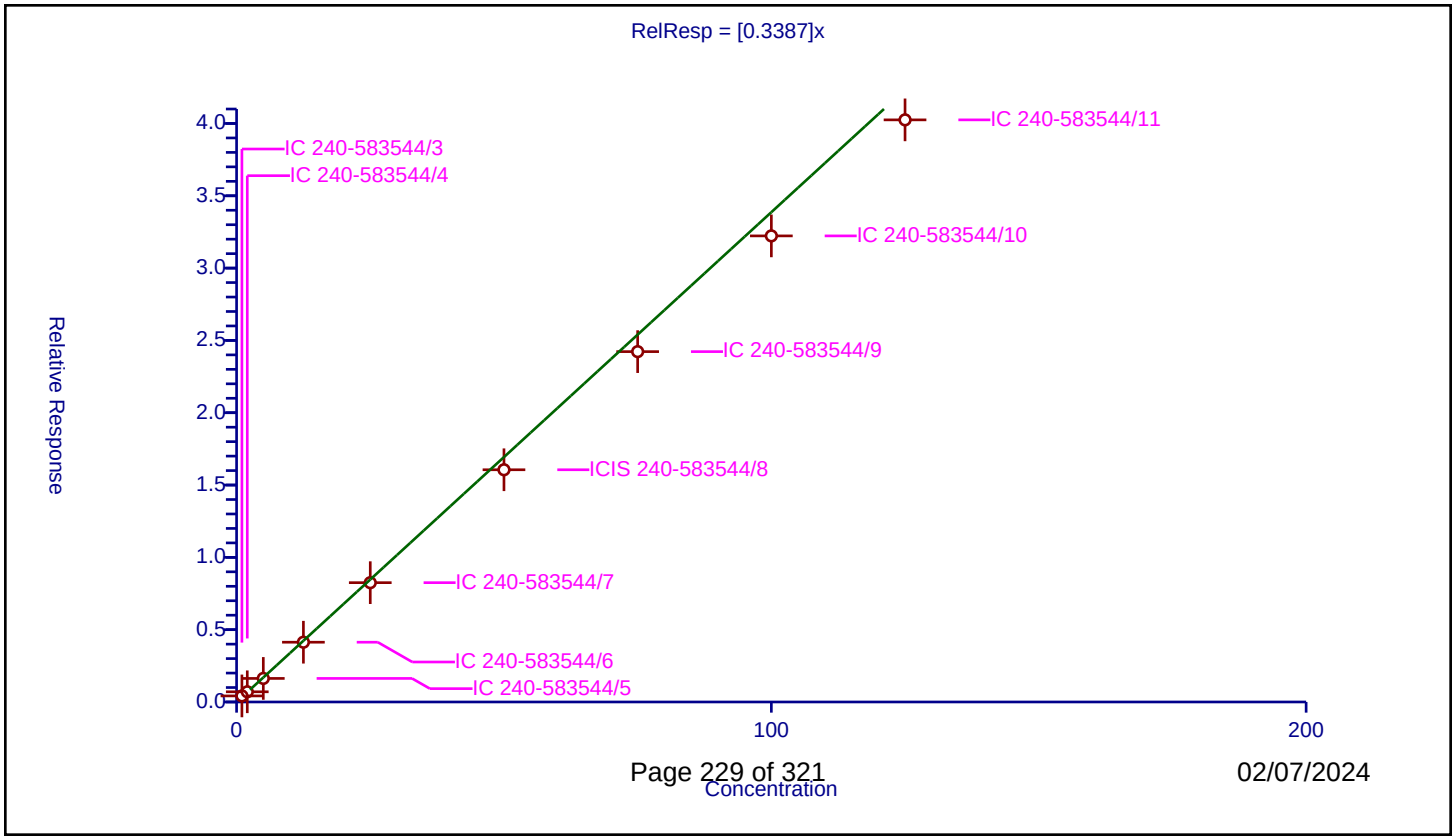
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3387 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1390000 |
| **Relative Standard Error:** | 9.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 1.0 | 0.42019 | 10.0 | 672601.0 | 0.42019 | Y |
| 2 | IC 240-583544/4 | 2.0 | 0.705776 | 10.0 | 642201.0 | 0.352888 | Y |
| 3 | IC 240-583544/5 | 5.0 | 1.629408 | 10.0 | 641914.0 | 0.325882 | Y |
| 4 | IC 240-583544/6 | 12.5 | 4.133826 | 10.0 | 639577.0 | 0.330706 | Y |
| 5 | IC 240-583544/7 | 25.0 | 8.249218 | 10.0 | 646871.0 | 0.329969 | Y |
| 6 | ICIS 240-583544/8 | 50.0 | 16.056427 | 10.0 | 647489.0 | 0.321129 | Y |
| 7 | IC 240-583544/9 | 75.0 | 24.225243 | 10.0 | 663718.0 | 0.323003 | Y |
| 8 | IC 240-583544/10 | 100.0 | 32.227778 | 10.0 | 655128.0 | 0.322278 | Y |
| 9 | IC 240-583544/11 | 125.0 | 40.249871 | 10.0 | 651776.0 | 0.321999 | Y |



## Calibration / Toluene-d8 (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

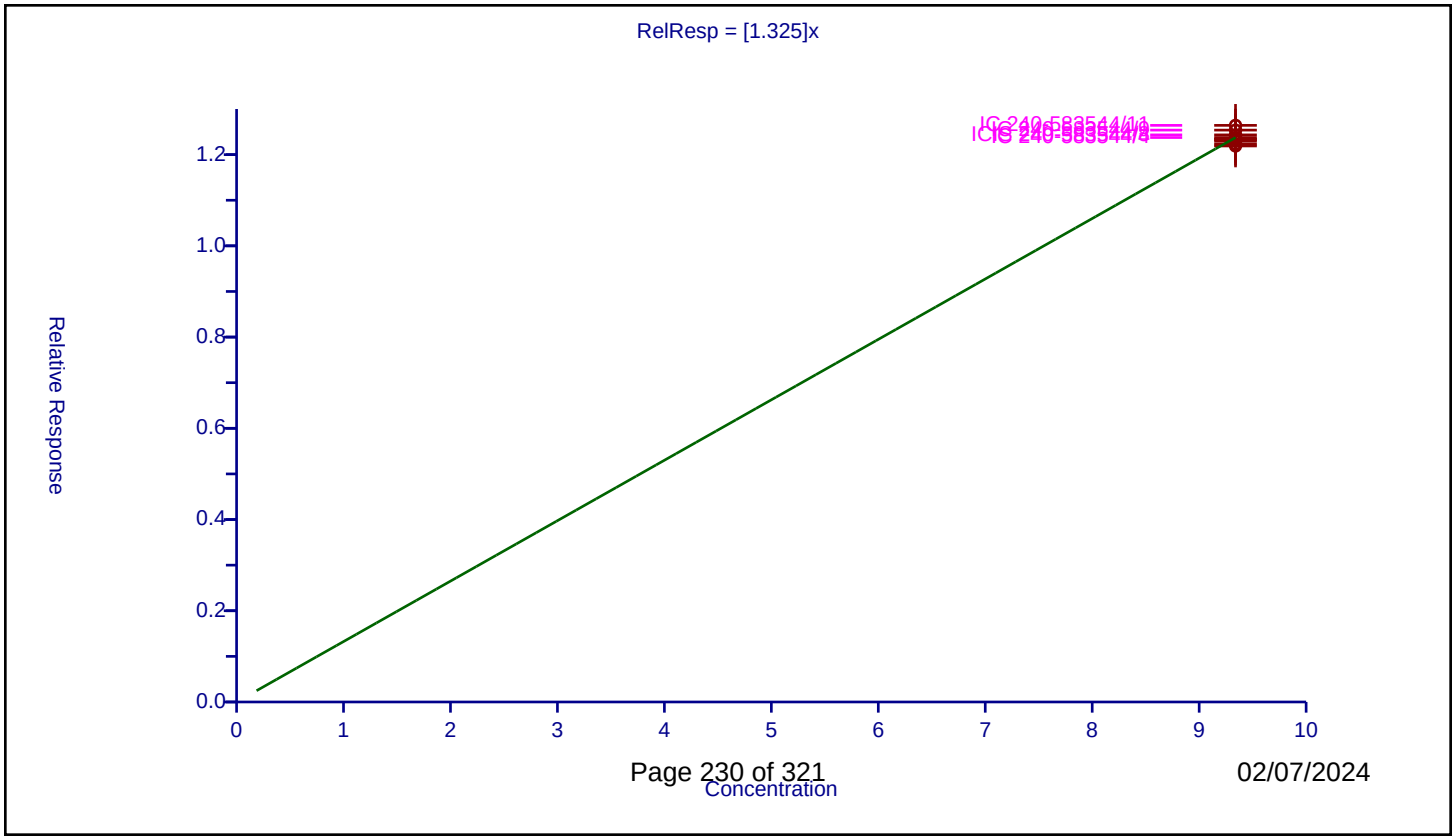
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.325 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 667000 |
| **Relative Standard Error:** | 1.2 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 9.34 | 12.228247 | 10.0 | 525579.0 | 1.309234 | Y |
| 2 | IC 240-583544/4 | 9.34 | 12.374265 | 10.0 | 493500.0 | 1.324868 | Y |
| 3 | IC 240-583544/5 | 9.34 | 12.291753 | 10.0 | 501808.0 | 1.316034 | Y |
| 4 | IC 240-583544/6 | 9.34 | 12.337009 | 10.0 | 495642.0 | 1.320879 | Y |
| 5 | IC 240-583544/7 | 9.34 | 12.332318 | 10.0 | 508344.0 | 1.320377 | Y |
| 6 | ICIS 240-583544/8 | 9.34 | 12.432978 | 10.0 | 506622.0 | 1.331154 | Y |
| 7 | IC 240-583544/9 | 9.34 | 12.537664 | 10.0 | 510229.0 | 1.342362 | Y |
| 8 | IC 240-583544/10 | 9.34 | 12.18944 | 10.0 | 521042.0 | 1.305079 | Y |
| 9 | IC 240-583544/11 | 9.34 | 12.641886 | 10.0 | 512399.0 | 1.353521 | Y |



## Calibration / Toluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

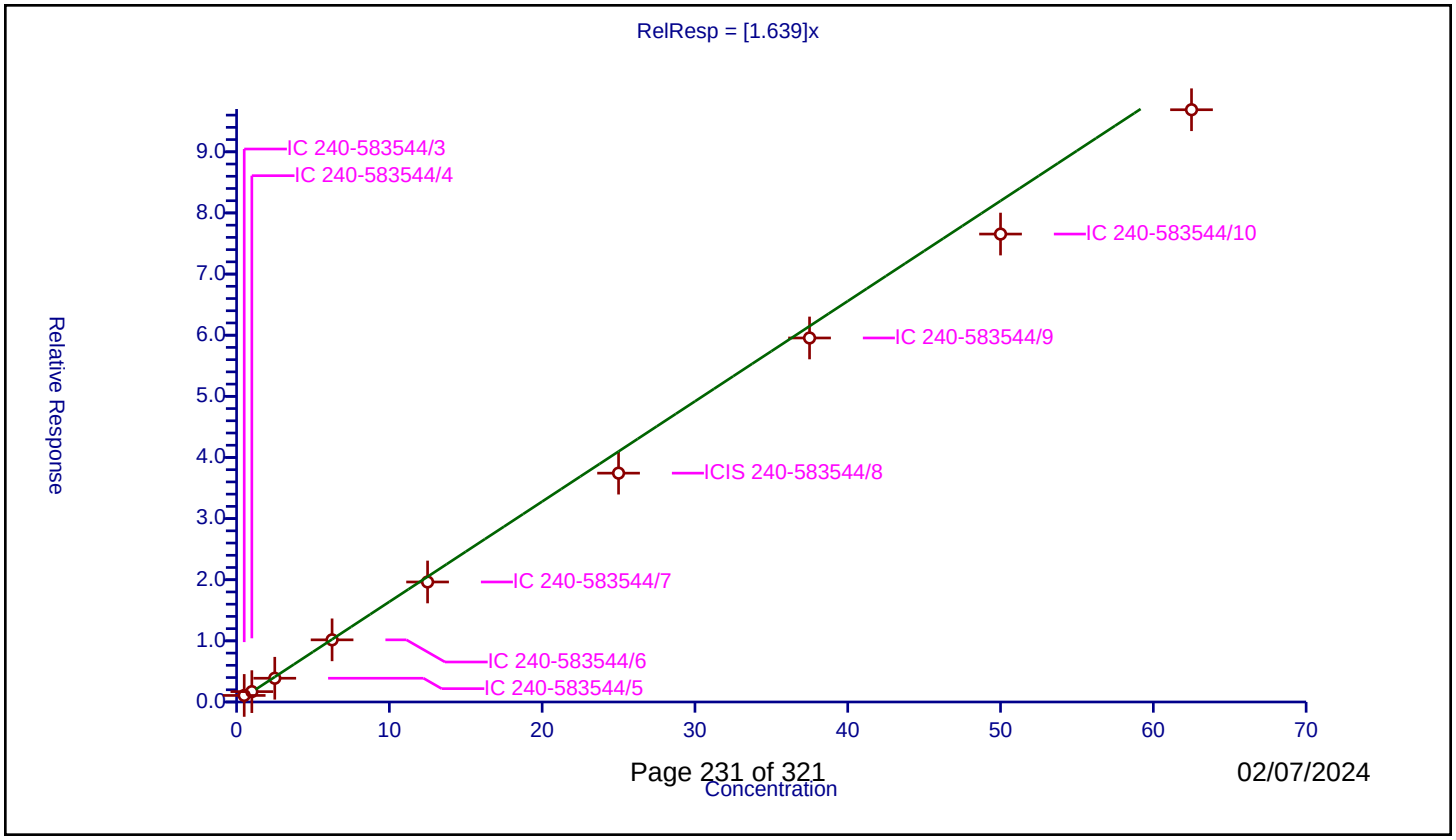
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.639 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2610000 |
| **Relative Standard Error:** | 12.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.072284 | 10.0 | 525579.0 | 2.144568 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.693333 | 10.0 | 493500.0 | 1.693333 | Y |
| 3 | IC 240-583544/5 | 2.5 | 3.884334 | 10.0 | 501808.0 | 1.553734 | Y |
| 4 | IC 240-583544/6 | 6.25 | 10.164998 | 10.0 | 495642.0 | 1.6264 | Y |
| 5 | IC 240-583544/7 | 12.5 | 19.63088 | 10.0 | 508344.0 | 1.57047 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 37.433234 | 10.0 | 506622.0 | 1.497329 | Y |
| 7 | IC 240-583544/9 | 37.5 | 59.546243 | 10.0 | 510229.0 | 1.5879 | Y |
| 8 | IC 240-583544/10 | 50.0 | 76.544252 | 10.0 | 521042.0 | 1.530885 | Y |
| 9 | IC 240-583544/11 | 62.5 | 96.88038 | 10.0 | 512399.0 | 1.550086 | Y |






02/07/2024

## Calibration / trans-1,3-Dichloropropene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

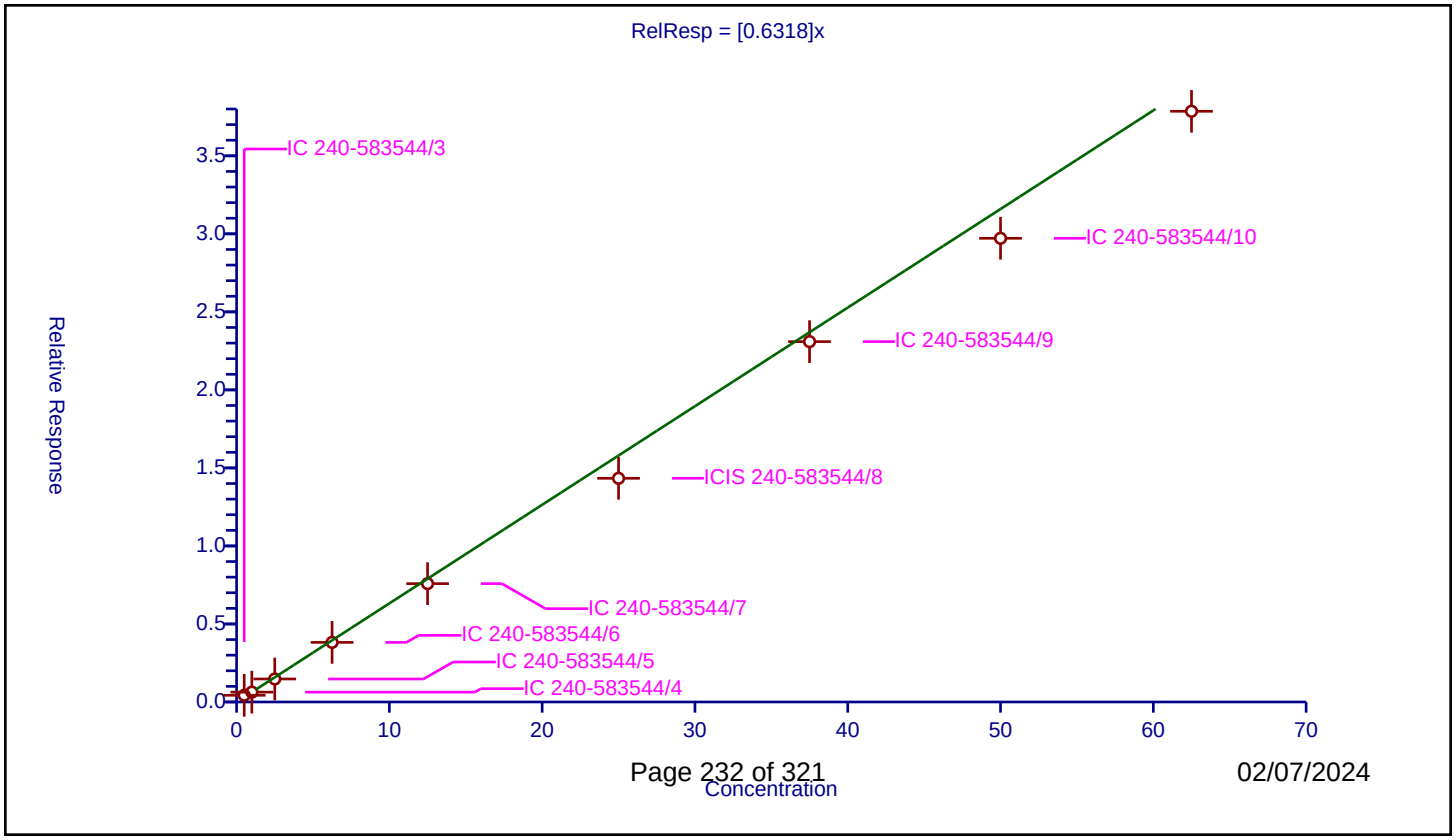
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6318 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1020000 |
| **Relative Standard Error:** | 13.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.972 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.429203 | 10.0 | 525579.0 | 0.858406 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.63153 | 10.0 | 493500.0 | 0.63153 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.473213 | 10.0 | 501808.0 | 0.589285 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.819652 | 10.0 | 495642.0 | 0.611144 | Y |
| 5 | IC 240-583544/7 | 12.5 | 7.584293 | 10.0 | 508344.0 | 0.606743 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 14.334968 | 10.0 | 506622.0 | 0.573399 | Y |
| 7 | IC 240-583544/9 | 37.5 | 23.092827 | 10.0 | 510229.0 | 0.615809 | Y |
| 8 | IC 240-583544/10 | 50.0 | 29.715935 | 10.0 | 521042.0 | 0.594319 | Y |
| 9 | IC 240-583544/11 | 62.5 | 37.854484 | 10.0 | 512399.0 | 0.605672 | Y |



## Calibration / Ethyl methacrylate

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

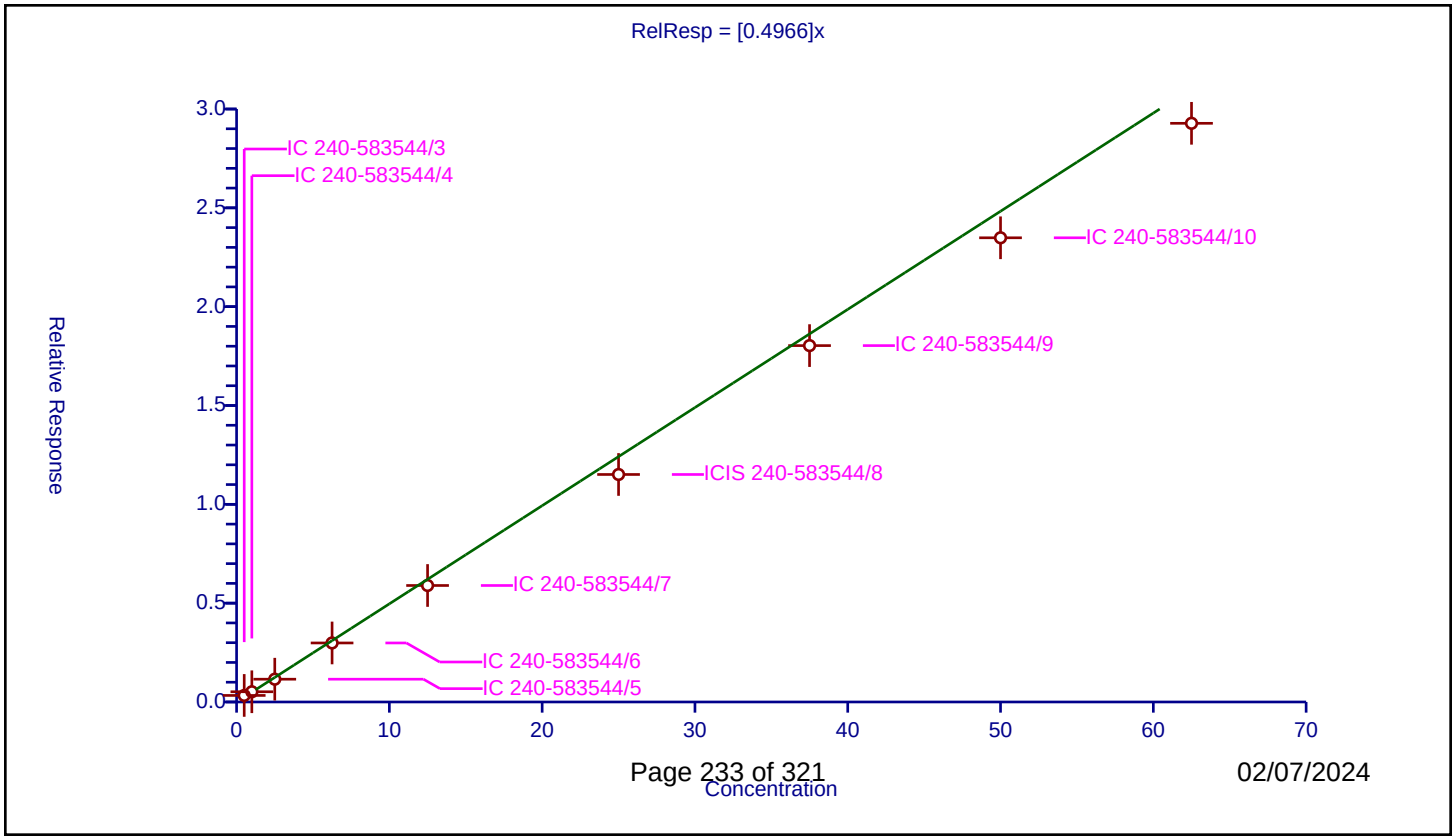
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4966 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 795000 |
| **Relative Standard Error:** | 13.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.975 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.331216 | 10.0 | 525579.0 | 0.662431 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.516798 | 10.0 | 493500.0 | 0.516798 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.152851 | 10.0 | 501808.0 | 0.461141 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.98649 | 10.0 | 495642.0 | 0.477838 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.893253 | 10.0 | 508344.0 | 0.47146 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 11.509824 | 10.0 | 506622.0 | 0.460393 | Y |
| 7 | IC 240-583544/9 | 37.5 | 18.031002 | 10.0 | 510229.0 | 0.480827 | Y |
| 8 | IC 240-583544/10 | 50.0 | 23.484729 | 10.0 | 521042.0 | 0.469695 | Y |
| 9 | IC 240-583544/11 | 62.5 | 29.277184 | 10.0 | 512399.0 | 0.468435 | Y |



## Calibration / 1,1,2-Trichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

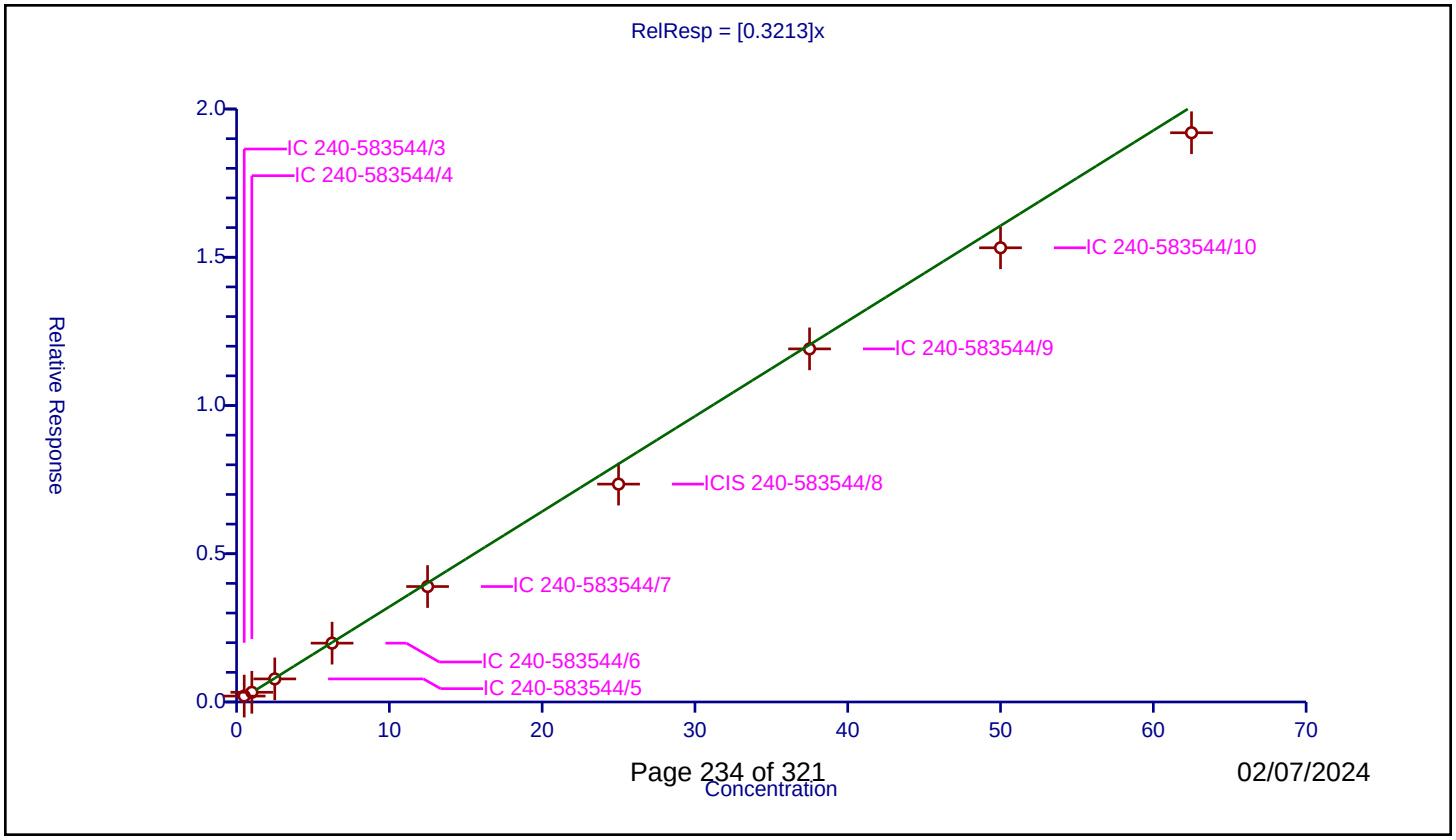
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3213 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 520000 |
| **Relative Standard Error:** | 9.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.199494 | 10.0 | 525579.0 | 0.398989 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.326707 | 10.0 | 493500.0 | 0.326707 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.778744 | 10.0 | 501808.0 | 0.311498 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.984598 | 10.0 | 495642.0 | 0.317536 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.893879 | 10.0 | 508344.0 | 0.31151 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 7.348477 | 10.0 | 506622.0 | 0.293939 | Y |
| 7 | IC 240-583544/9 | 37.5 | 11.909535 | 10.0 | 510229.0 | 0.317588 | Y |
| 8 | IC 240-583544/10 | 50.0 | 15.319725 | 10.0 | 521042.0 | 0.306394 | Y |
| 9 | IC 240-583544/11 | 62.5 | 19.199315 | 10.0 | 512399.0 | 0.307189 | Y |



## Calibration / Tetrachloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

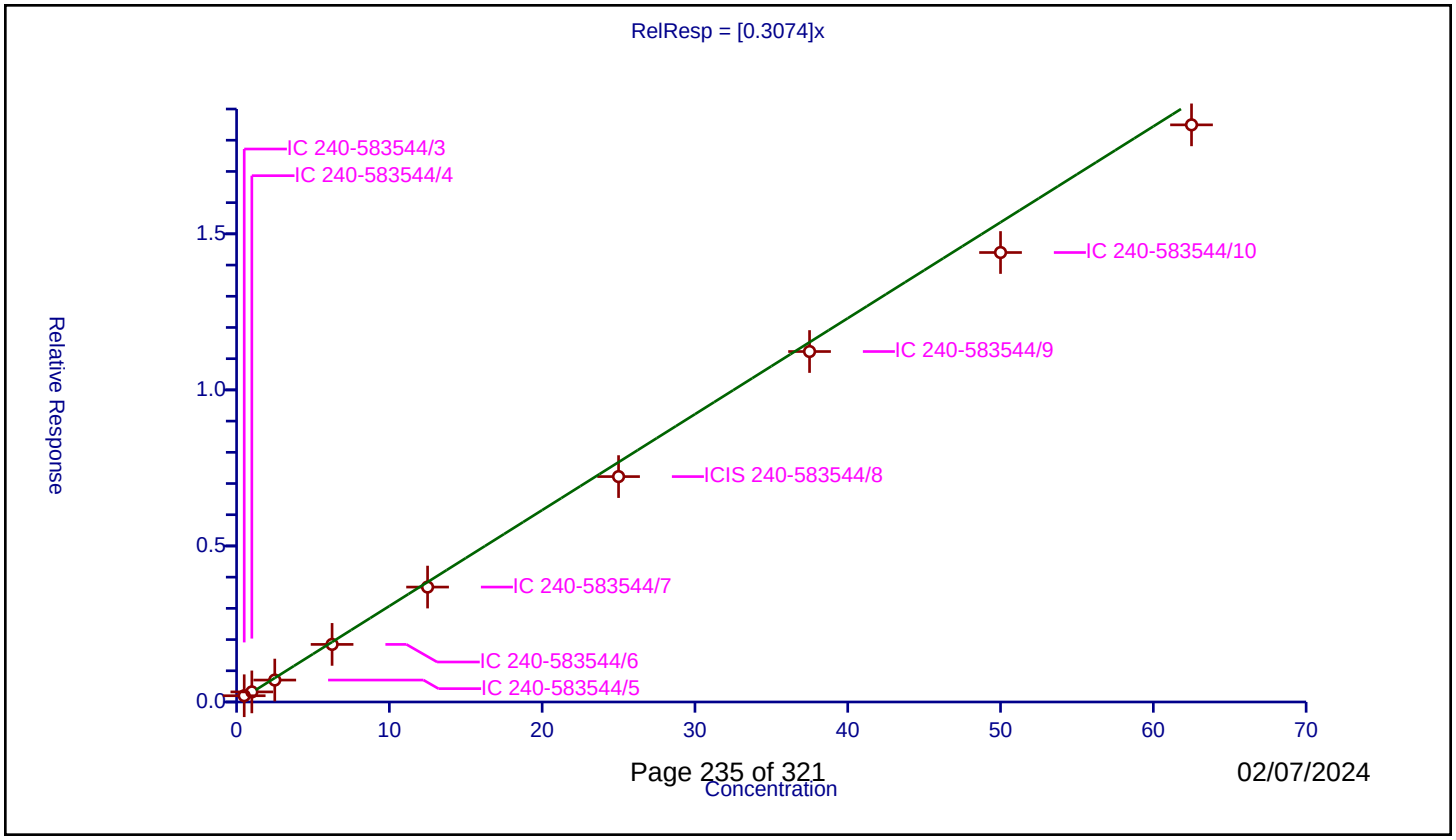
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3074 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 496000 |
| **Relative Standard Error:** | 12.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.200179 | 10.0 | 525579.0 | 0.400358 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.32306 | 10.0 | 493500.0 | 0.32306 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.7024 | 10.0 | 501808.0 | 0.28096 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.845405 | 10.0 | 495642.0 | 0.295265 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.682133 | 10.0 | 508344.0 | 0.294571 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 7.222367 | 10.0 | 506622.0 | 0.288895 | Y |
| 7 | IC 240-583544/9 | 37.5 | 11.22986 | 10.0 | 510229.0 | 0.299463 | Y |
| 8 | IC 240-583544/10 | 50.0 | 14.402102 | 10.0 | 521042.0 | 0.288042 | Y |
| 9 | IC 240-583544/11 | 62.5 | 18.492718 | 10.0 | 512399.0 | 0.295883 | Y |



## Calibration / 1,3-Dichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

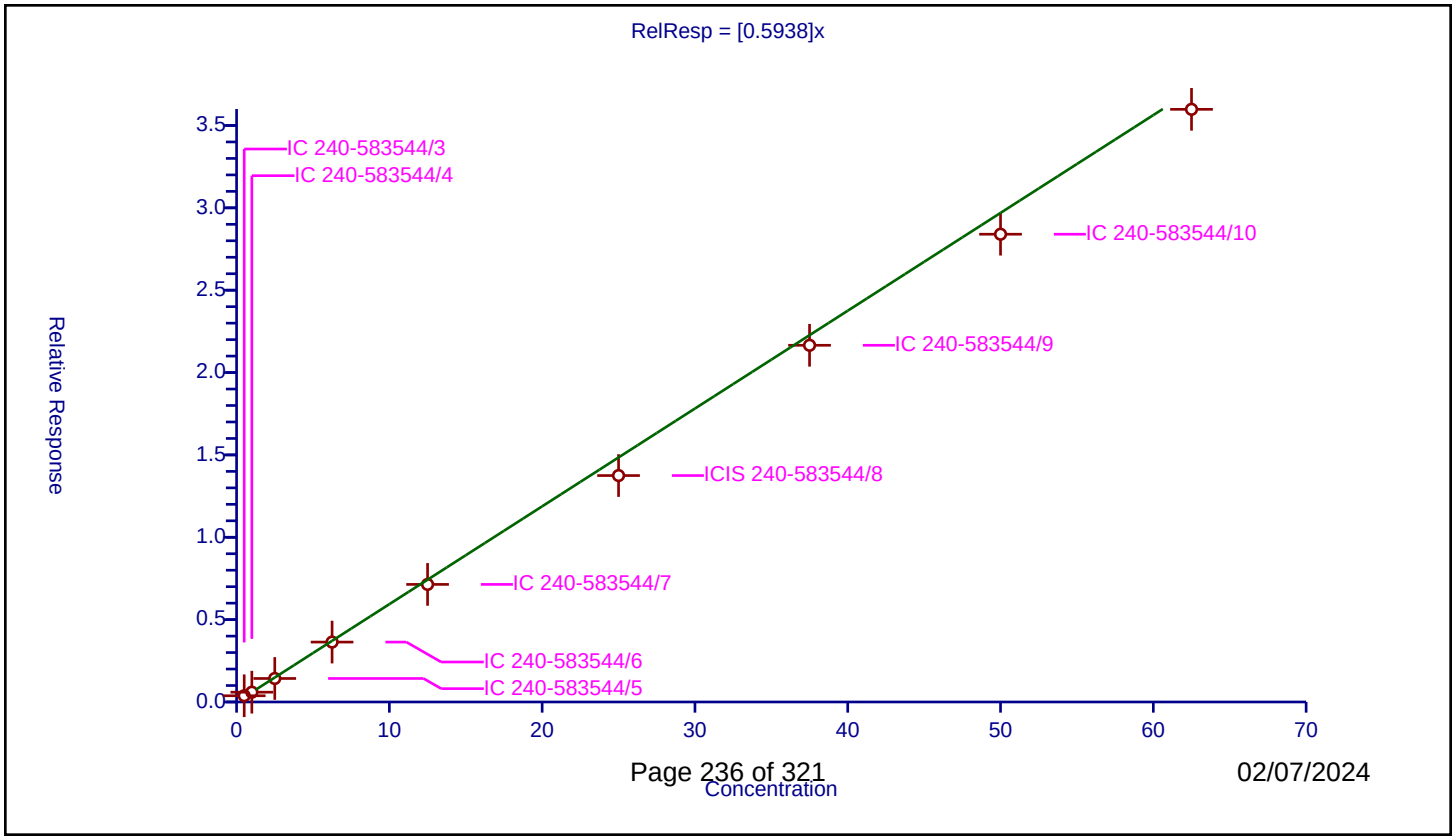
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5938 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 966000 |
| **Relative Standard Error:** | 10.4 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.377717 | 10.0 | 525579.0 | 0.755434 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.594367 | 10.0 | 493500.0 | 0.594367 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.426741 | 10.0 | 501808.0 | 0.570696 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.63702 | 10.0 | 495642.0 | 0.581923 | Y |
| 5 | IC 240-583544/7 | 12.5 | 7.138316 | 10.0 | 508344.0 | 0.571065 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 13.7481 | 10.0 | 506622.0 | 0.549924 | Y |
| 7 | IC 240-583544/9 | 37.5 | 21.656139 | 10.0 | 510229.0 | 0.577497 | Y |
| 8 | IC 240-583544/10 | 50.0 | 28.399668 | 10.0 | 521042.0 | 0.567993 | Y |
| 9 | IC 240-583544/11 | 62.5 | 35.980847 | 10.0 | 512399.0 | 0.575694 | Y |



## Calibration / 2-Hexanone

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

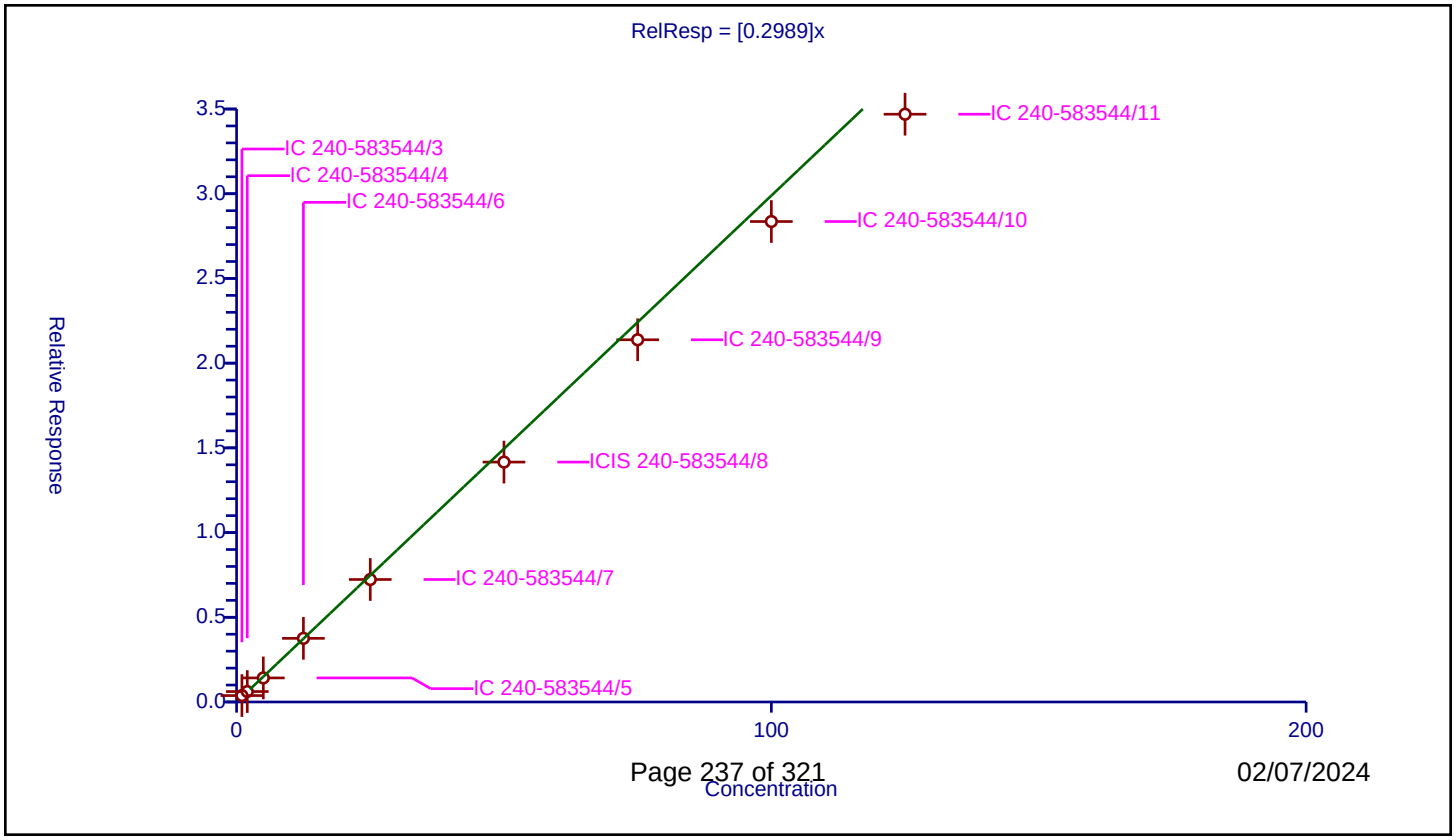
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2989 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 950000 |
| **Relative Standard Error:** | 10.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.984 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 1.0 | 0.37882 | 10.0 | 525579.0 | 0.37882 | Y |
| 2 | IC 240-583544/4 | 2.0 | 0.616069 | 10.0 | 493500.0 | 0.308034 | Y |
| 3 | IC 240-583544/5 | 5.0 | 1.419985 | 10.0 | 501808.0 | 0.283997 | Y |
| 4 | IC 240-583544/6 | 12.5 | 3.756643 | 10.0 | 495642.0 | 0.300531 | Y |
| 5 | IC 240-583544/7 | 25.0 | 7.229317 | 10.0 | 508344.0 | 0.289173 | Y |
| 6 | ICIS 240-583544/8 | 50.0 | 14.159985 | 10.0 | 506622.0 | 0.2832 | Y |
| 7 | IC 240-583544/9 | 75.0 | 21.380223 | 10.0 | 510229.0 | 0.28507 | Y |
| 8 | IC 240-583544/10 | 100.0 | 28.359614 | 10.0 | 521042.0 | 0.283596 | Y |
| 9 | IC 240-583544/11 | 125.0 | 34.693745 | 10.0 | 512399.0 | 0.27755 | Y |



## Calibration / Chlorodibromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

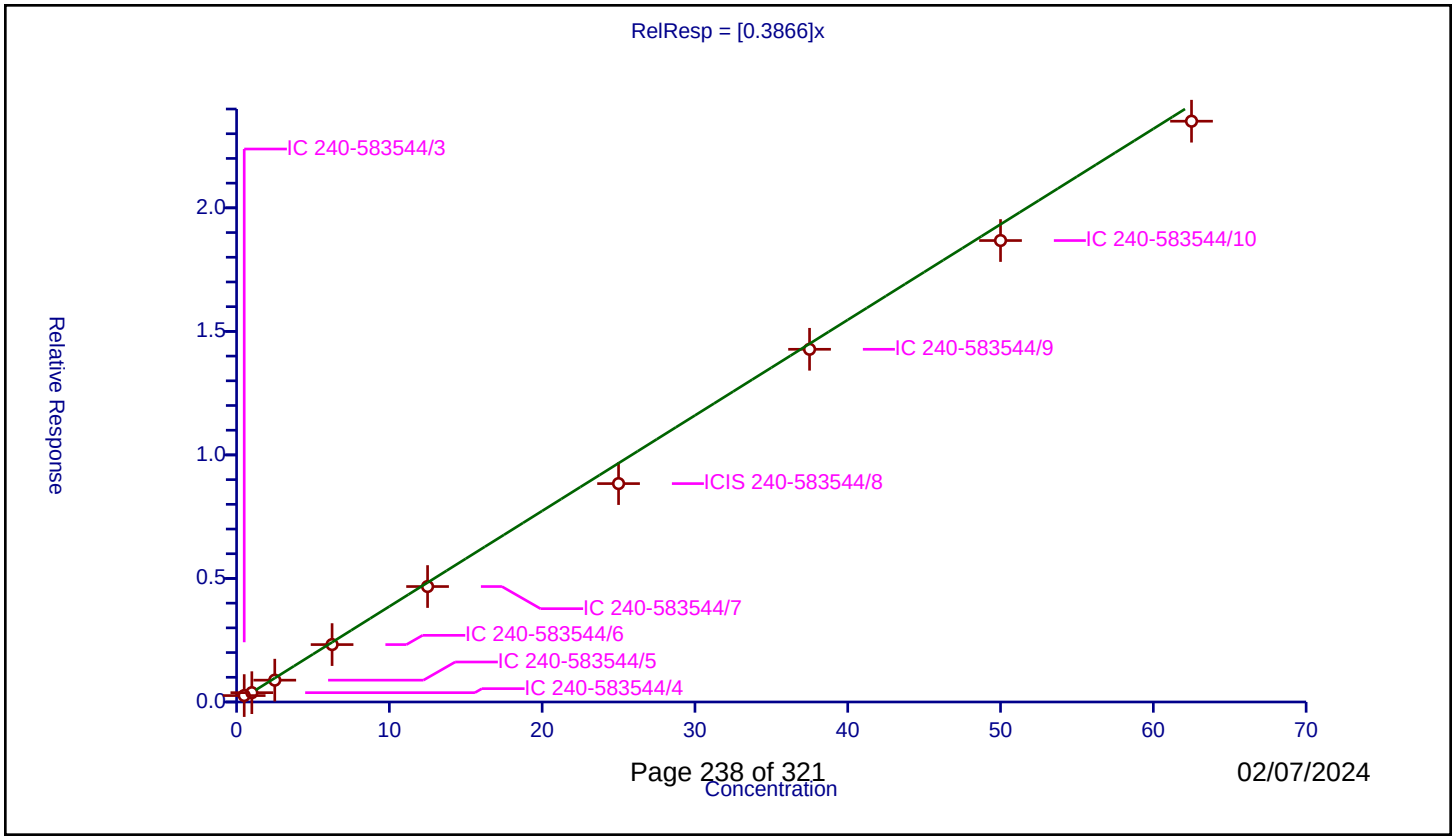
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3866 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 633000 |
| **Relative Standard Error:** | 13.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.975 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.260018 | 10.0 | 525579.0 | 0.520036 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.377001 | 10.0 | 493500.0 | 0.377001 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.883107 | 10.0 | 501808.0 | 0.353243 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.323249 | 10.0 | 495642.0 | 0.37172 | Y |
| 5 | IC 240-583544/7 | 12.5 | 4.673292 | 10.0 | 508344.0 | 0.373863 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 8.838542 | 10.0 | 506622.0 | 0.353542 | Y |
| 7 | IC 240-583544/9 | 37.5 | 14.275178 | 10.0 | 510229.0 | 0.380671 | Y |
| 8 | IC 240-583544/10 | 50.0 | 18.677304 | 10.0 | 521042.0 | 0.373546 | Y |
| 9 | IC 240-583544/11 | 62.5 | 23.50672 | 10.0 | 512399.0 | 0.376108 | Y |



## Calibration / Ethylene Dibromide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

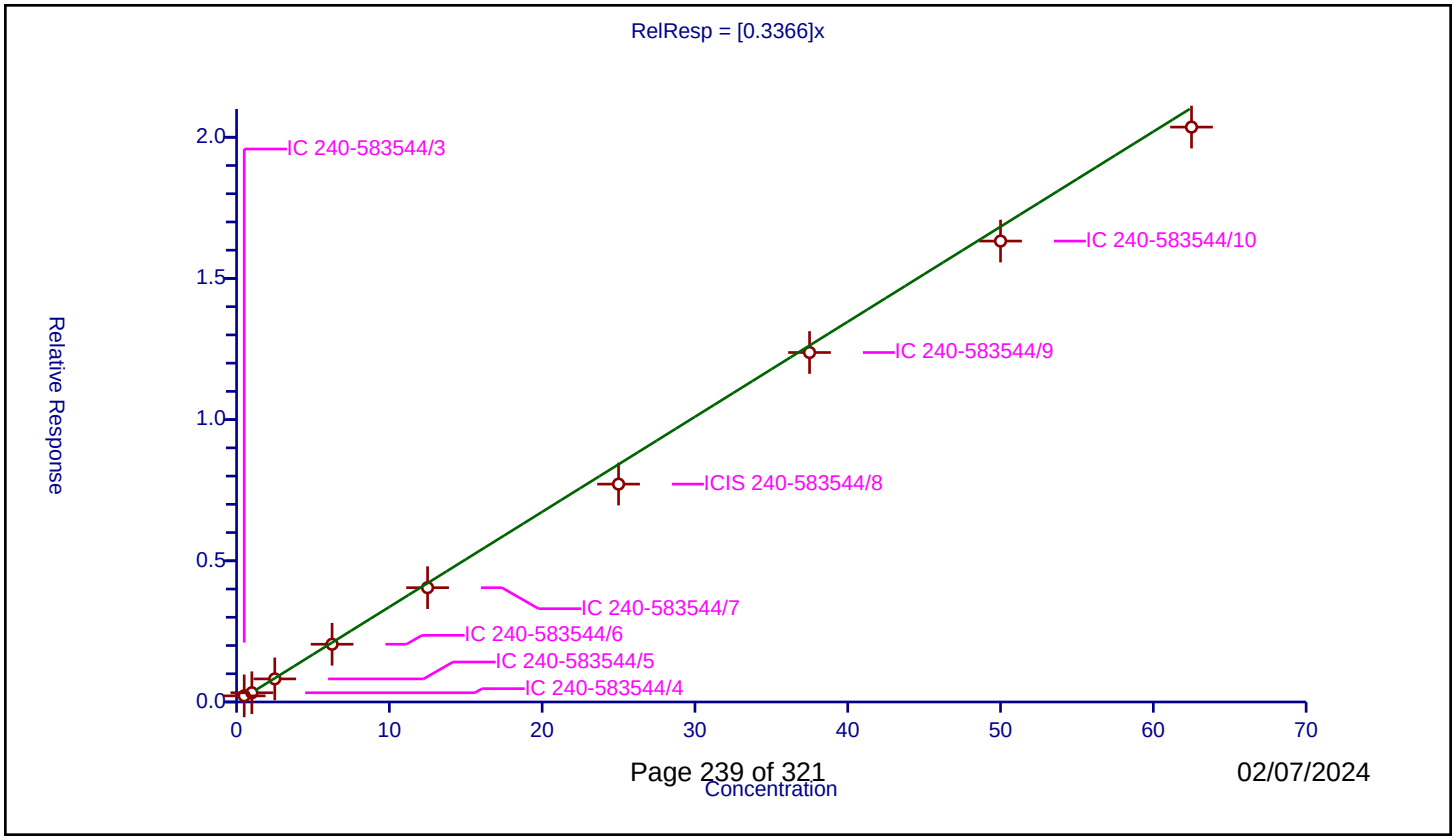
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3366 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 550000 |
| **Relative Standard Error:** | 10.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.216751 | 10.0 | 525579.0 | 0.433503 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.327437 | 10.0 | 493500.0 | 0.327437 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.817145 | 10.0 | 501808.0 | 0.326858 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.045448 | 10.0 | 495642.0 | 0.327272 | Y |
| 5 | IC 240-583544/7 | 12.5 | 4.048066 | 10.0 | 508344.0 | 0.323845 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 7.716562 | 10.0 | 506622.0 | 0.308662 | Y |
| 7 | IC 240-583544/9 | 37.5 | 12.377168 | 10.0 | 510229.0 | 0.330058 | Y |
| 8 | IC 240-583544/10 | 50.0 | 16.322907 | 10.0 | 521042.0 | 0.326458 | Y |
| 9 | IC 240-583544/11 | 62.5 | 20.359388 | 10.0 | 512399.0 | 0.32575 | Y |



## Calibration / Chlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

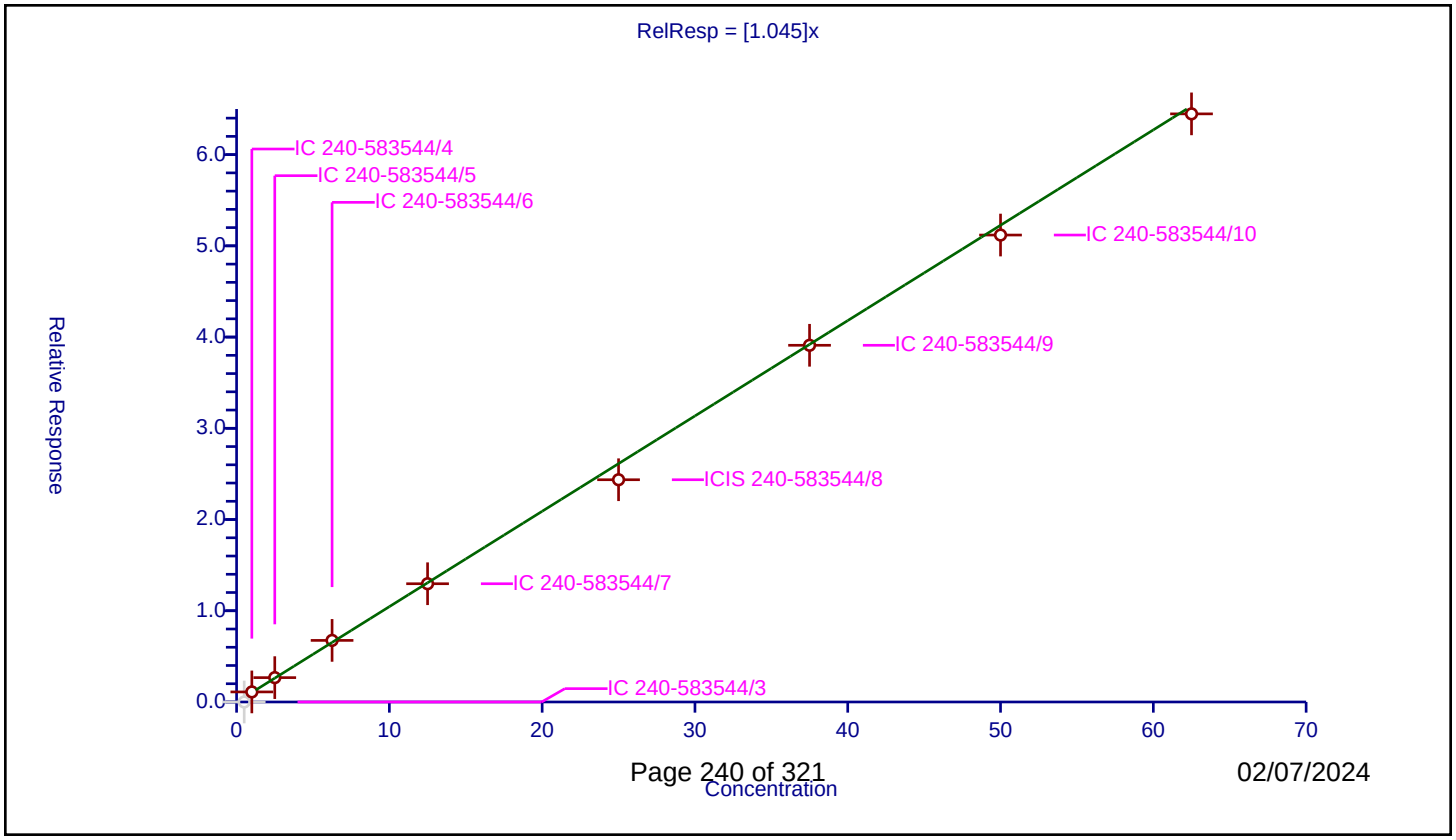
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.045 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1860000 |
| **Relative Standard Error:** | 3.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.0 | 10.0 | 525579.0 | 0.0 | N |
| 2 | IC 240-583544/4 | 1.0 | 1.104296 | 10.0 | 493500.0 | 1.104296 | Y |
| 3 | IC 240-583544/5 | 2.5 | 2.669168 | 10.0 | 501808.0 | 1.067667 | Y |
| 4 | IC 240-583544/6 | 6.25 | 6.750074 | 10.0 | 495642.0 | 1.080012 | Y |
| 5 | IC 240-583544/7 | 12.5 | 12.963072 | 10.0 | 508344.0 | 1.037046 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 24.363727 | 10.0 | 506622.0 | 0.974549 | Y |
| 7 | IC 240-583544/9 | 37.5 | 39.100012 | 10.0 | 510229.0 | 1.042667 | Y |
| 8 | IC 240-583544/10 | 50.0 | 51.184262 | 10.0 | 521042.0 | 1.023685 | Y |
| 9 | IC 240-583544/11 | 62.5 | 64.468315 | 10.0 | 512399.0 | 1.031493 | Y |



## Calibration / 1,1,1,2-Tetrachloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

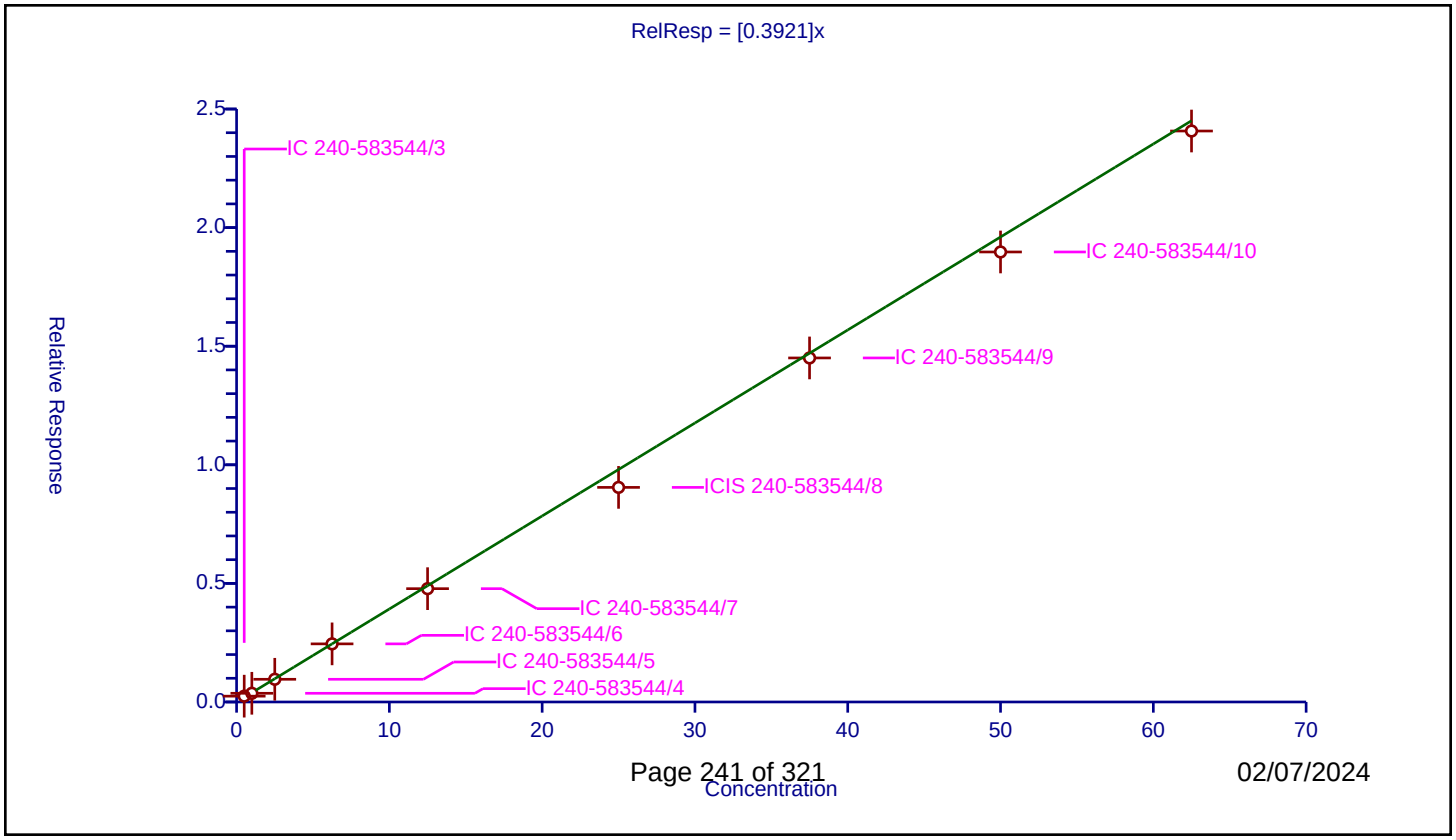
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3921 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 645000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.245786 | 10.0 | 525579.0 | 0.491572 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.366748 | 10.0 | 493500.0 | 0.366748 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.957418 | 10.0 | 501808.0 | 0.382967 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.450156 | 10.0 | 495642.0 | 0.392025 | Y |
| 5 | IC 240-583544/7 | 12.5 | 4.777985 | 10.0 | 508344.0 | 0.382239 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 9.047811 | 10.0 | 506622.0 | 0.361912 | Y |
| 7 | IC 240-583544/9 | 37.5 | 14.505408 | 10.0 | 510229.0 | 0.386811 | Y |
| 8 | IC 240-583544/10 | 50.0 | 18.972463 | 10.0 | 521042.0 | 0.379449 | Y |
| 9 | IC 240-583544/11 | 62.5 | 24.072959 | 10.0 | 512399.0 | 0.385167 | Y |



## Calibration / Ethylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

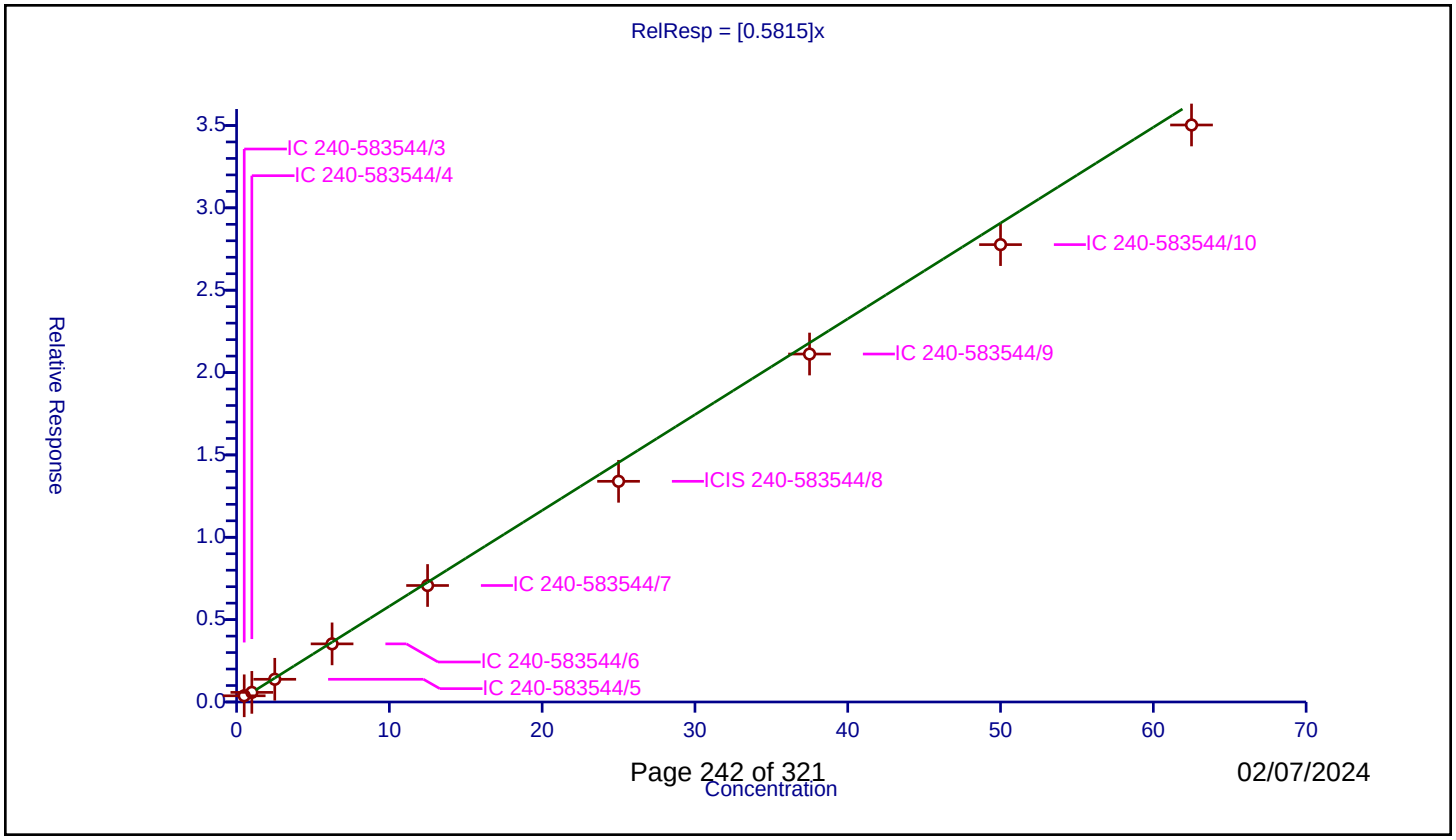
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5815 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 942000 |
| **Relative Standard Error:** | 11.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.376461 | 10.0 | 525579.0 | 0.752922 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.584073 | 10.0 | 493500.0 | 0.584073 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.378037 | 10.0 | 501808.0 | 0.551215 | Y |
| 4 | IC 240-583544/6 | 6.25 | 3.528474 | 10.0 | 495642.0 | 0.564556 | Y |
| 5 | IC 240-583544/7 | 12.5 | 7.072238 | 10.0 | 508344.0 | 0.565779 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 13.398155 | 10.0 | 506622.0 | 0.535926 | Y |
| 7 | IC 240-583544/9 | 37.5 | 21.124221 | 10.0 | 510229.0 | 0.563313 | Y |
| 8 | IC 240-583544/10 | 50.0 | 27.767147 | 10.0 | 521042.0 | 0.555343 | Y |
| 9 | IC 240-583544/11 | 62.5 | 35.030045 | 10.0 | 512399.0 | 0.560481 | Y |



## Calibration / m-Xylene & p-Xylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

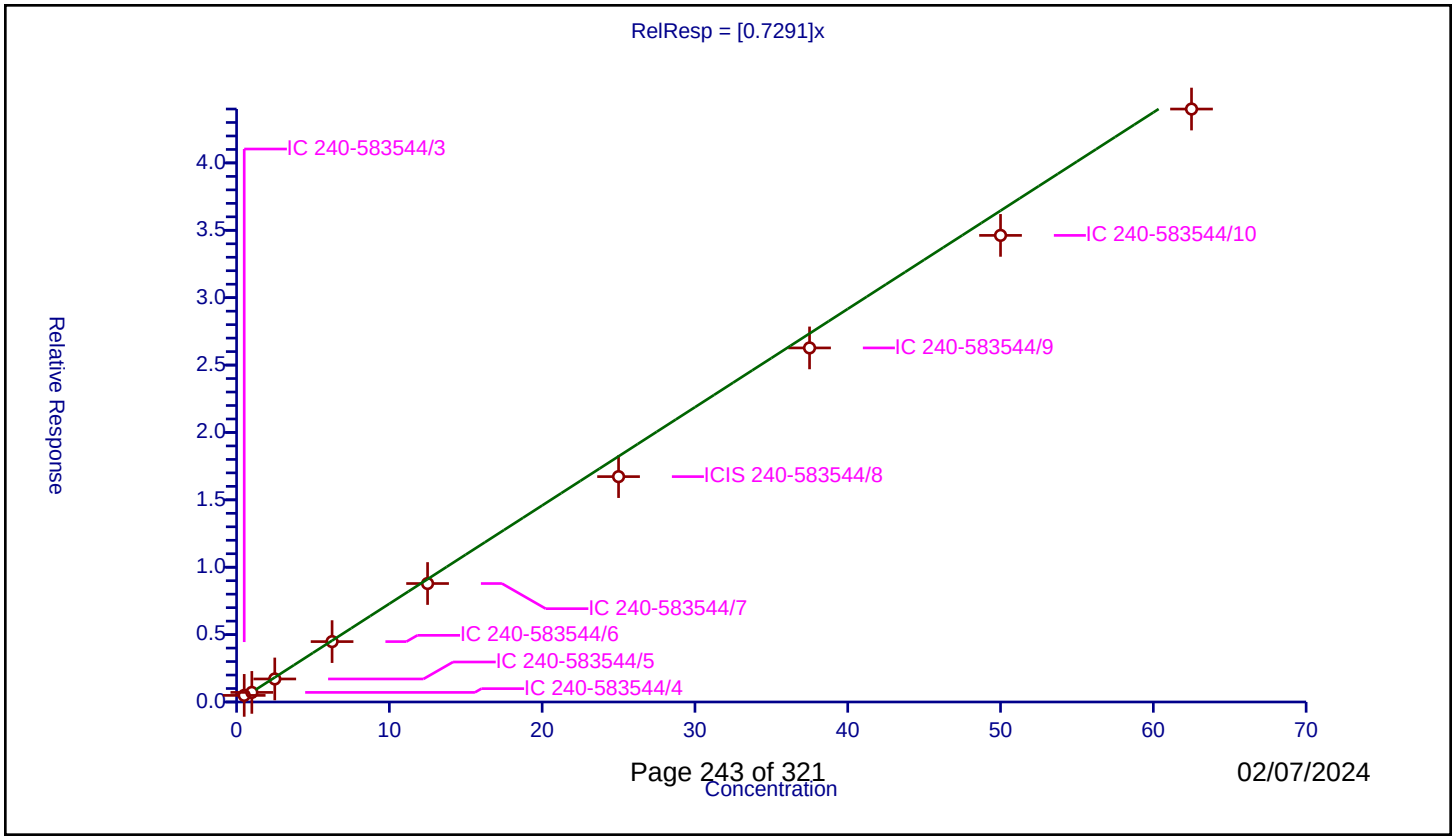
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7291 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1180000 |
| **Relative Standard Error:** | 13.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.975 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.490107 | 10.0 | 525579.0 | 0.980214 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.71228 | 10.0 | 493500.0 | 0.71228 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.70896 | 10.0 | 501808.0 | 0.683584 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.480169 | 10.0 | 495642.0 | 0.716827 | Y |
| 5 | IC 240-583544/7 | 12.5 | 8.789875 | 10.0 | 508344.0 | 0.70319 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 16.722231 | 10.0 | 506622.0 | 0.668889 | Y |
| 7 | IC 240-583544/9 | 37.5 | 26.272732 | 10.0 | 510229.0 | 0.700606 | Y |
| 8 | IC 240-583544/10 | 50.0 | 34.623524 | 10.0 | 521042.0 | 0.69247 | Y |
| 9 | IC 240-583544/11 | 62.5 | 43.9987 | 10.0 | 512399.0 | 0.703979 | Y |



## Calibration / o-Xylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

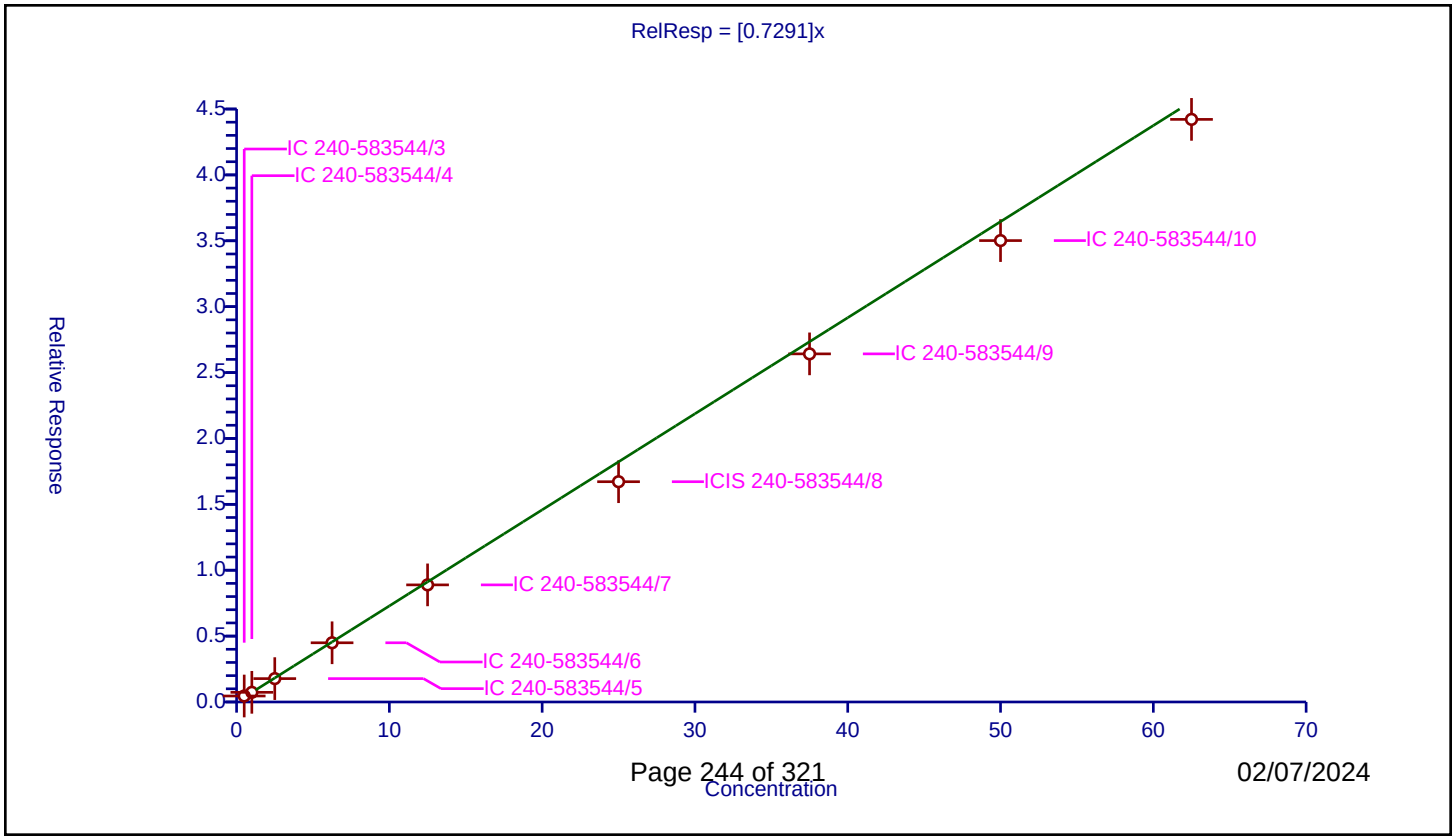
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7291 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1190000 |
| **Relative Standard Error:** | 9.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.453785 | 10.0 | 525579.0 | 0.907571 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.733617 | 10.0 | 493500.0 | 0.733617 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.774683 | 10.0 | 501808.0 | 0.709873 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.49294 | 10.0 | 495642.0 | 0.71887 | Y |
| 5 | IC 240-583544/7 | 12.5 | 8.886305 | 10.0 | 508344.0 | 0.710904 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 16.716092 | 10.0 | 506622.0 | 0.668644 | Y |
| 7 | IC 240-583544/9 | 37.5 | 26.418902 | 10.0 | 510229.0 | 0.704504 | Y |
| 8 | IC 240-583544/10 | 50.0 | 35.014567 | 10.0 | 521042.0 | 0.700291 | Y |
| 9 | IC 240-583544/11 | 62.5 | 44.21205 | 10.0 | 512399.0 | 0.707393 | Y |



## Calibration / Styrene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

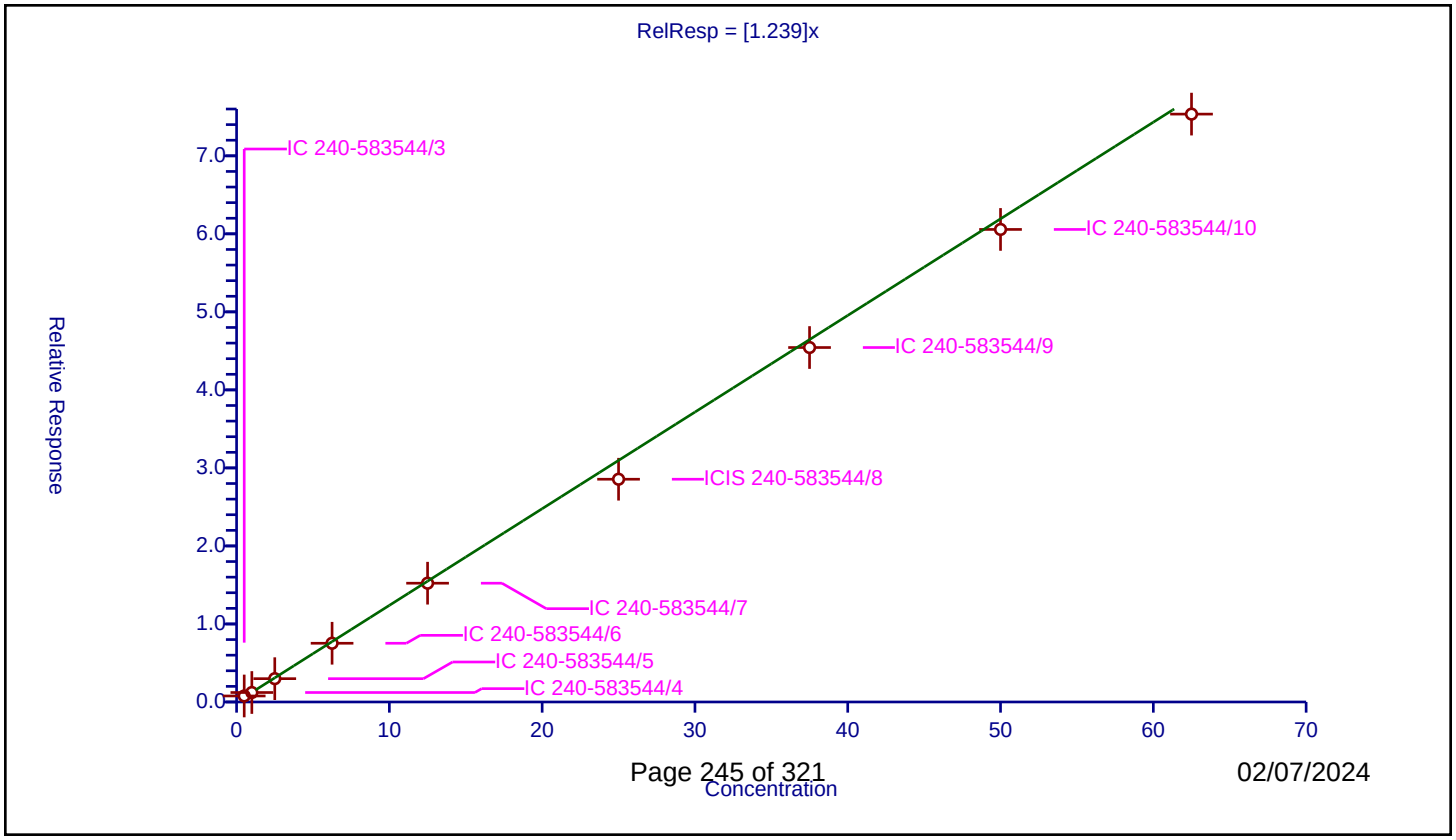
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.239 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2030000 |
| **Relative Standard Error:** | 9.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.77193 | 10.0 | 525579.0 | 1.543859 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.213941 | 10.0 | 493500.0 | 1.213941 | Y |
| 3 | IC 240-583544/5 | 2.5 | 2.990287 | 10.0 | 501808.0 | 1.196115 | Y |
| 4 | IC 240-583544/6 | 6.25 | 7.5287 | 10.0 | 495642.0 | 1.204592 | Y |
| 5 | IC 240-583544/7 | 12.5 | 15.225123 | 10.0 | 508344.0 | 1.21801 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 28.548938 | 10.0 | 506622.0 | 1.141958 | Y |
| 7 | IC 240-583544/9 | 37.5 | 45.4326 | 10.0 | 510229.0 | 1.211536 | Y |
| 8 | IC 240-583544/10 | 50.0 | 60.56435 | 10.0 | 521042.0 | 1.211287 | Y |
| 9 | IC 240-583544/11 | 62.5 | 75.347337 | 10.0 | 512399.0 | 1.205557 | Y |



## Calibration / Bromoform

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

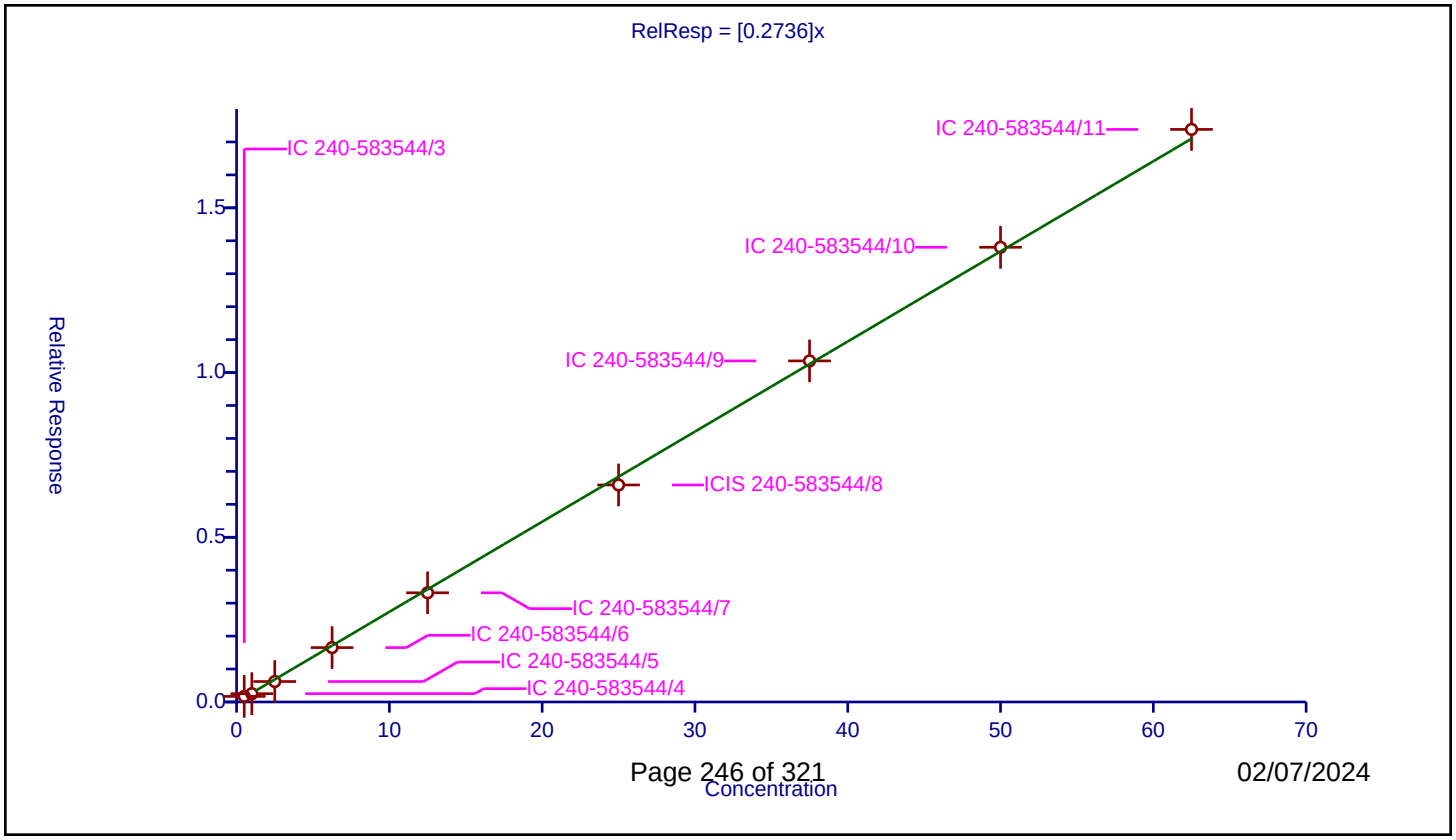
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2736 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 466000 |
| **Relative Standard Error:** | 9.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.169394 | 10.0 | 525579.0 | 0.338788 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.251895 | 10.0 | 493500.0 | 0.251895 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.621054 | 10.0 | 501808.0 | 0.248422 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.650566 | 10.0 | 495642.0 | 0.264091 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.314645 | 10.0 | 508344.0 | 0.265172 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 6.588068 | 10.0 | 506622.0 | 0.263523 | Y |
| 7 | IC 240-583544/9 | 37.5 | 10.35392 | 10.0 | 510229.0 | 0.276105 | Y |
| 8 | IC 240-583544/10 | 50.0 | 13.802841 | 10.0 | 521042.0 | 0.276057 | Y |
| 9 | IC 240-583544/11 | 62.5 | 17.380342 | 10.0 | 512399.0 | 0.278085 | Y |



## Calibration / Isopropylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

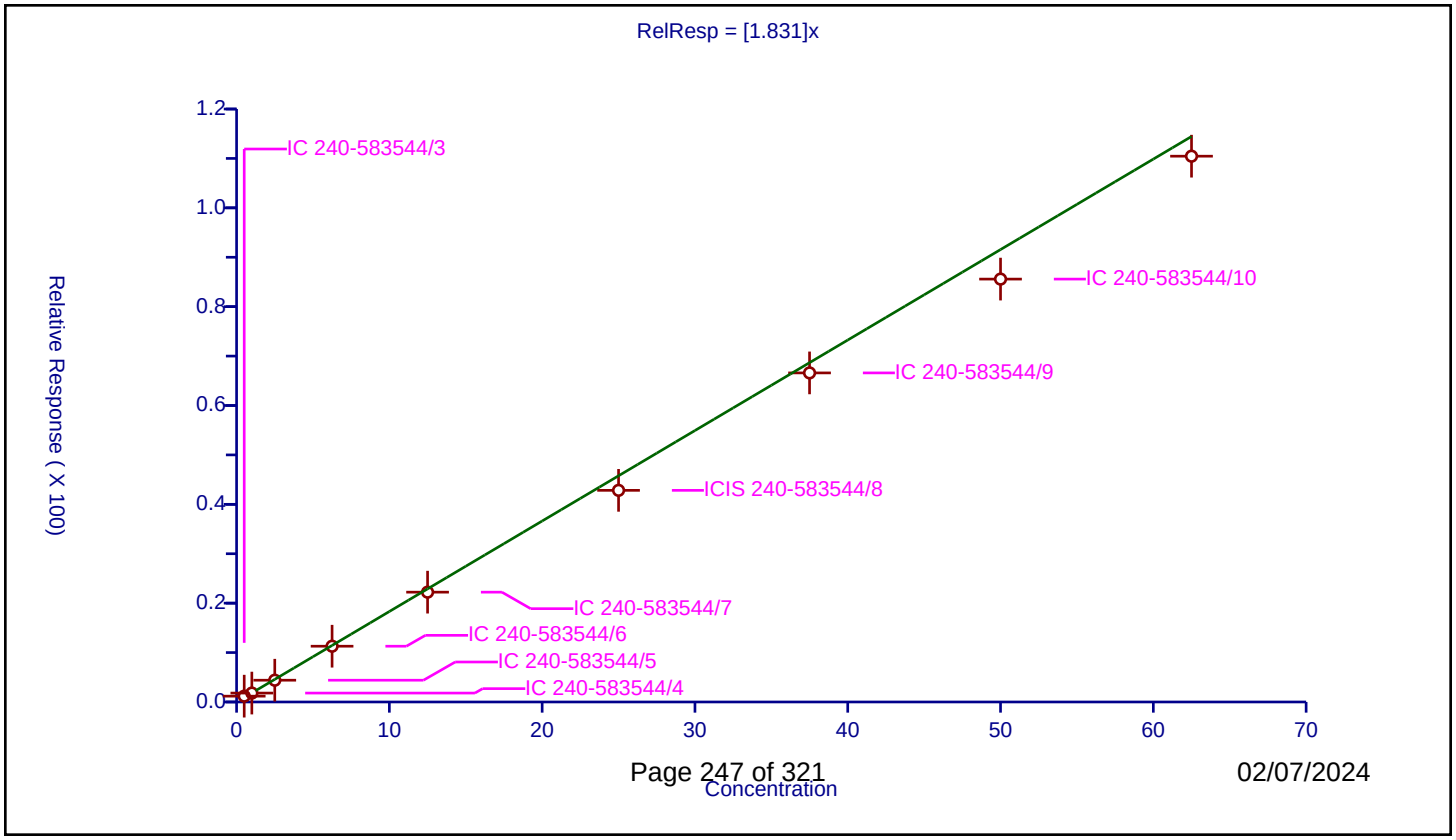
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.831 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2950000 |
| **Relative Standard Error:** | 11.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.179404 | 10.0 | 525579.0 | 2.358808 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.805187 | 10.0 | 493500.0 | 1.805187 | Y |
| 3 | IC 240-583544/5 | 2.5 | 4.408399 | 10.0 | 501808.0 | 1.76336 | Y |
| 4 | IC 240-583544/6 | 6.25 | 11.289459 | 10.0 | 495642.0 | 1.806313 | Y |
| 5 | IC 240-583544/7 | 12.5 | 22.225029 | 10.0 | 508344.0 | 1.778002 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 42.831579 | 10.0 | 506622.0 | 1.713263 | Y |
| 7 | IC 240-583544/9 | 37.5 | 66.596646 | 10.0 | 510229.0 | 1.775911 | Y |
| 8 | IC 240-583544/10 | 50.0 | 85.57907 | 10.0 | 521042.0 | 1.711581 | Y |
| 9 | IC 240-583544/11 | 62.5 | 110.455368 | 10.0 | 512399.0 | 1.767286 | Y |



## Calibration / 4-Bromofluorobenzene (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

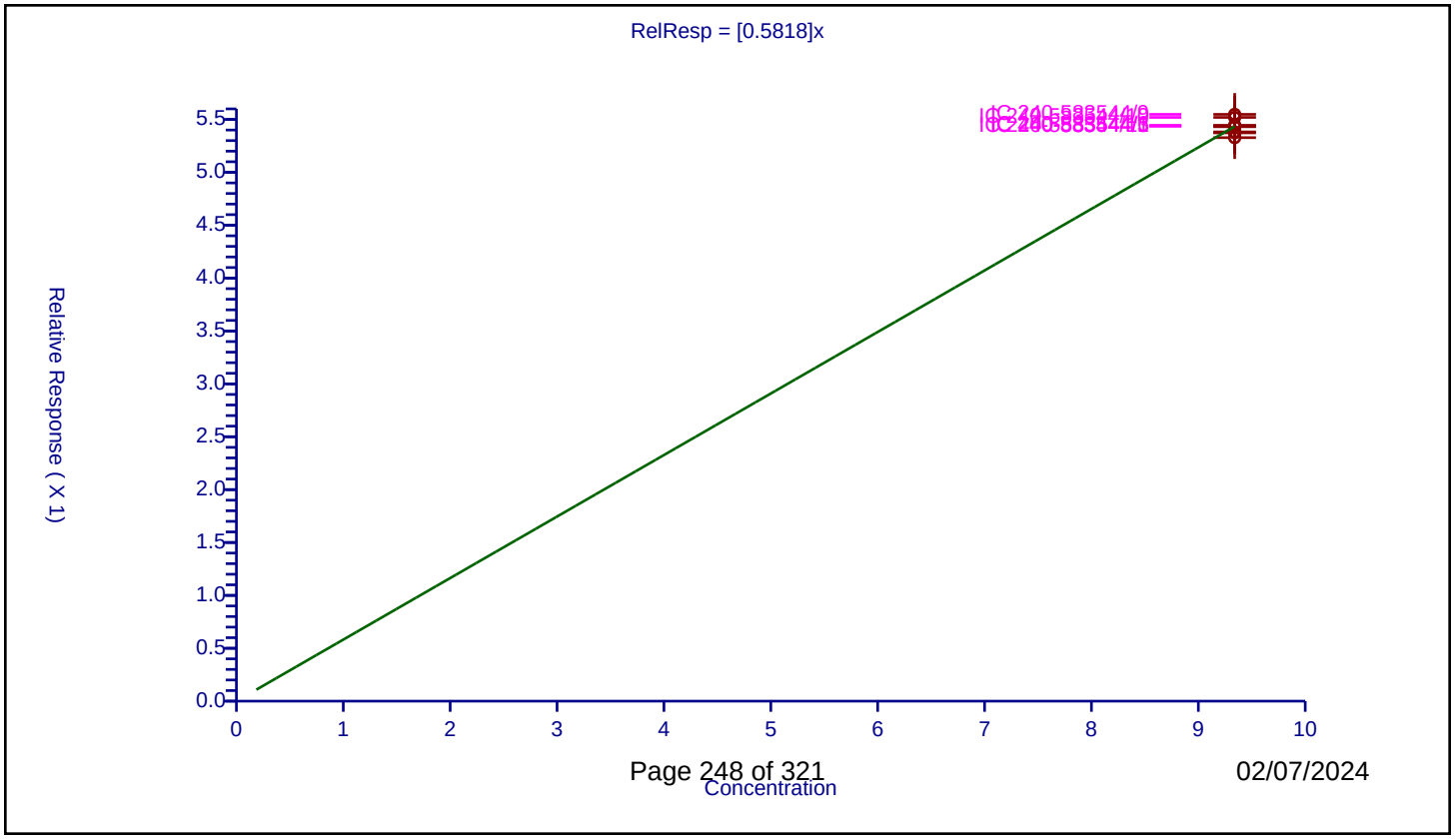
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5818 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 293000 |
| **Relative Standard Error:** | 1.3 |
| **Correlation Coefficient:** | 0.00000000000000000000 |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 9.34 | 5.436785 | 10.0 | 525579.0 | 0.582097 | Y |
| 2 | IC 240-583544/4 | 9.34 | 5.382472 | 10.0 | 493500.0 | 0.576282 | Y |
| 3 | IC 240-583544/5 | 9.34 | 5.328014 | 10.0 | 501808.0 | 0.570451 | Y |
| 4 | IC 240-583544/6 | 9.34 | 5.444111 | 10.0 | 495642.0 | 0.582881 | Y |
| 5 | IC 240-583544/7 | 9.34 | 5.373369 | 10.0 | 508344.0 | 0.575307 | Y |
| 6 | ICIS 240-583544/8 | 9.34 | 5.431209 | 10.0 | 506622.0 | 0.5815 | Y |
| 7 | IC 240-583544/9 | 9.34 | 5.547999 | 10.0 | 510229.0 | 0.594004 | Y |
| 8 | IC 240-583544/10 | 9.34 | 5.519382 | 10.0 | 521042.0 | 0.59094 | Y |
| 9 | IC 240-583544/11 | 9.34 | 5.438808 | 10.0 | 512399.0 | 0.582314 | Y |



## Calibration / 1,1,2,2-Tetrachloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

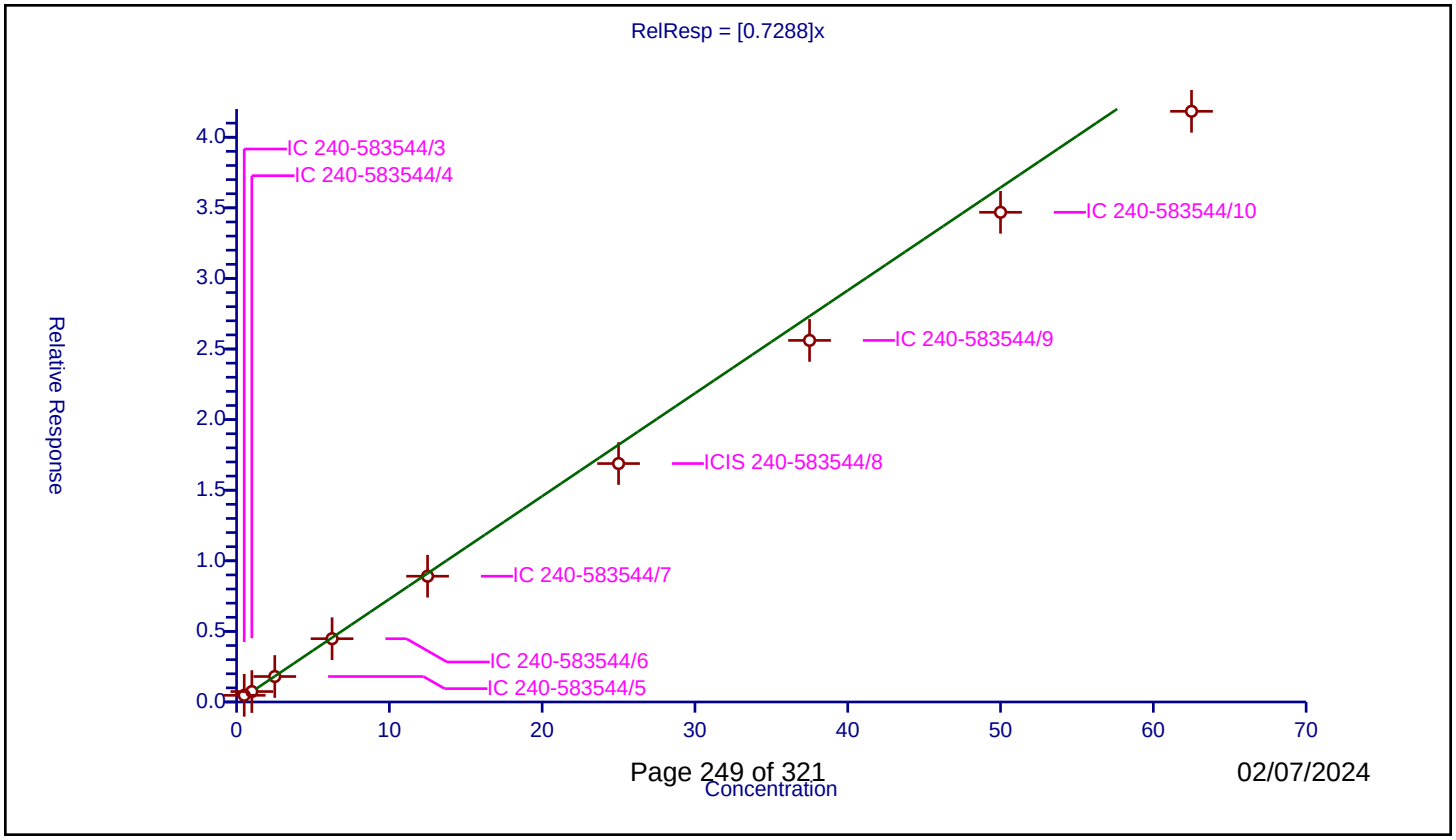
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7288 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 691000 |
| **Relative Standard Error:** | 11.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.980 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.472643 | 10.0 | 313260.0 | 0.945285 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.740245 | 10.0 | 298212.0 | 0.740245 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.804281 | 10.0 | 297825.0 | 0.721712 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.483206 | 10.0 | 292418.0 | 0.717313 | Y |
| 5 | IC 240-583544/7 | 12.5 | 8.908729 | 10.0 | 303316.0 | 0.712698 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 16.888461 | 10.0 | 301796.0 | 0.675538 | Y |
| 7 | IC 240-583544/9 | 37.5 | 25.610108 | 10.0 | 311584.0 | 0.682936 | Y |
| 8 | IC 240-583544/10 | 50.0 | 34.685276 | 10.0 | 305267.0 | 0.693706 | Y |
| 9 | IC 240-583544/11 | 62.5 | 41.836682 | 10.0 | 312482.0 | 0.669387 | Y |



## Calibration / Bromobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

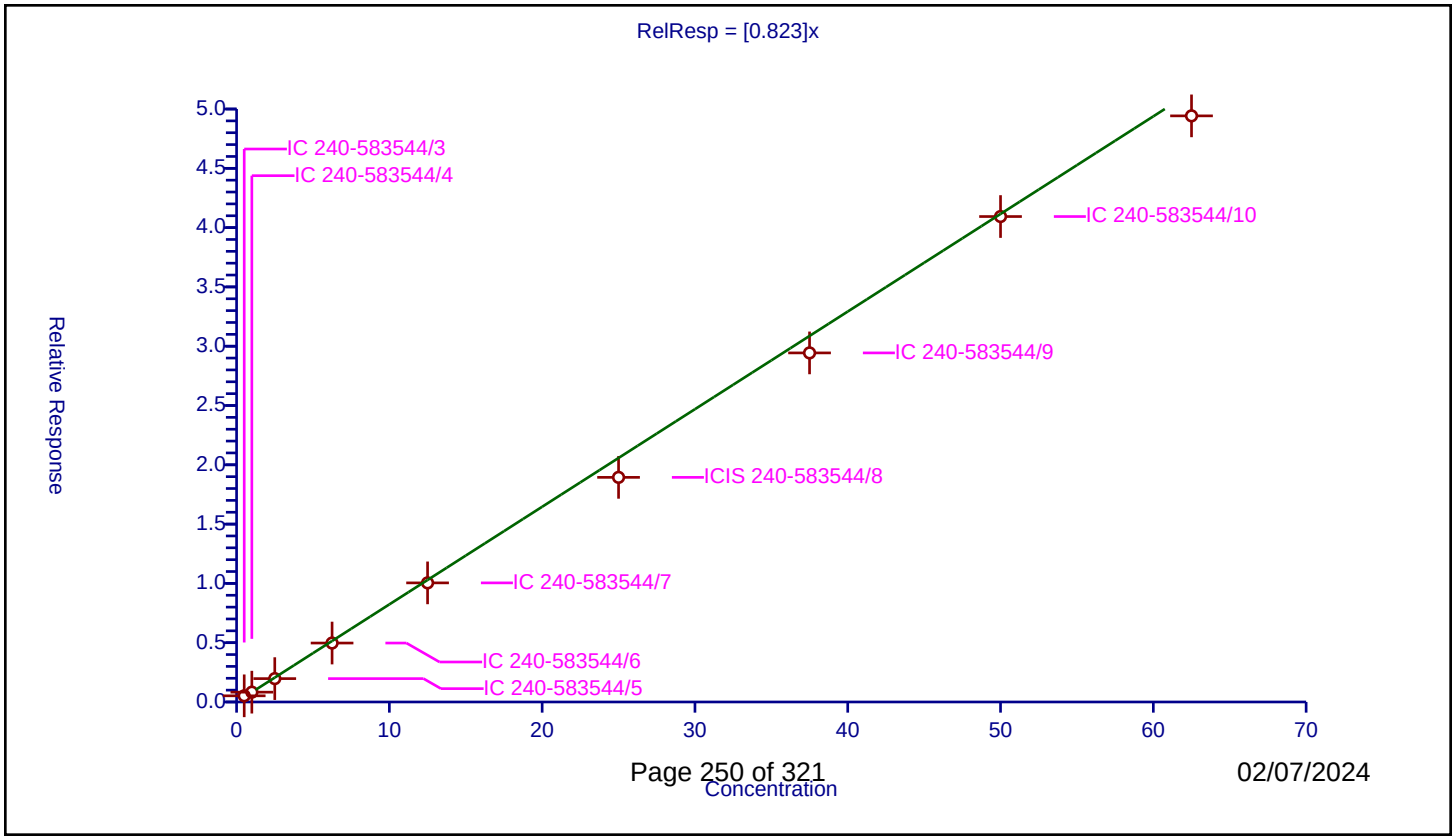
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.823 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 809000 |
| **Relative Standard Error:** | 10.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.520015 | 10.0 | 313260.0 | 1.040031 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.828236 | 10.0 | 298212.0 | 0.828236 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.970285 | 10.0 | 297825.0 | 0.788114 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.971377 | 10.0 | 292418.0 | 0.79542 | Y |
| 5 | IC 240-583544/7 | 12.5 | 10.044145 | 10.0 | 303316.0 | 0.803532 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 18.94041 | 10.0 | 301796.0 | 0.757616 | Y |
| 7 | IC 240-583544/9 | 37.5 | 29.433893 | 10.0 | 311584.0 | 0.784904 | Y |
| 8 | IC 240-583544/10 | 50.0 | 40.934297 | 10.0 | 305267.0 | 0.818686 | Y |
| 9 | IC 240-583544/11 | 62.5 | 49.422111 | 10.0 | 312482.0 | 0.790754 | Y |



## Calibration / trans-1,4-Dichloro-2-butene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

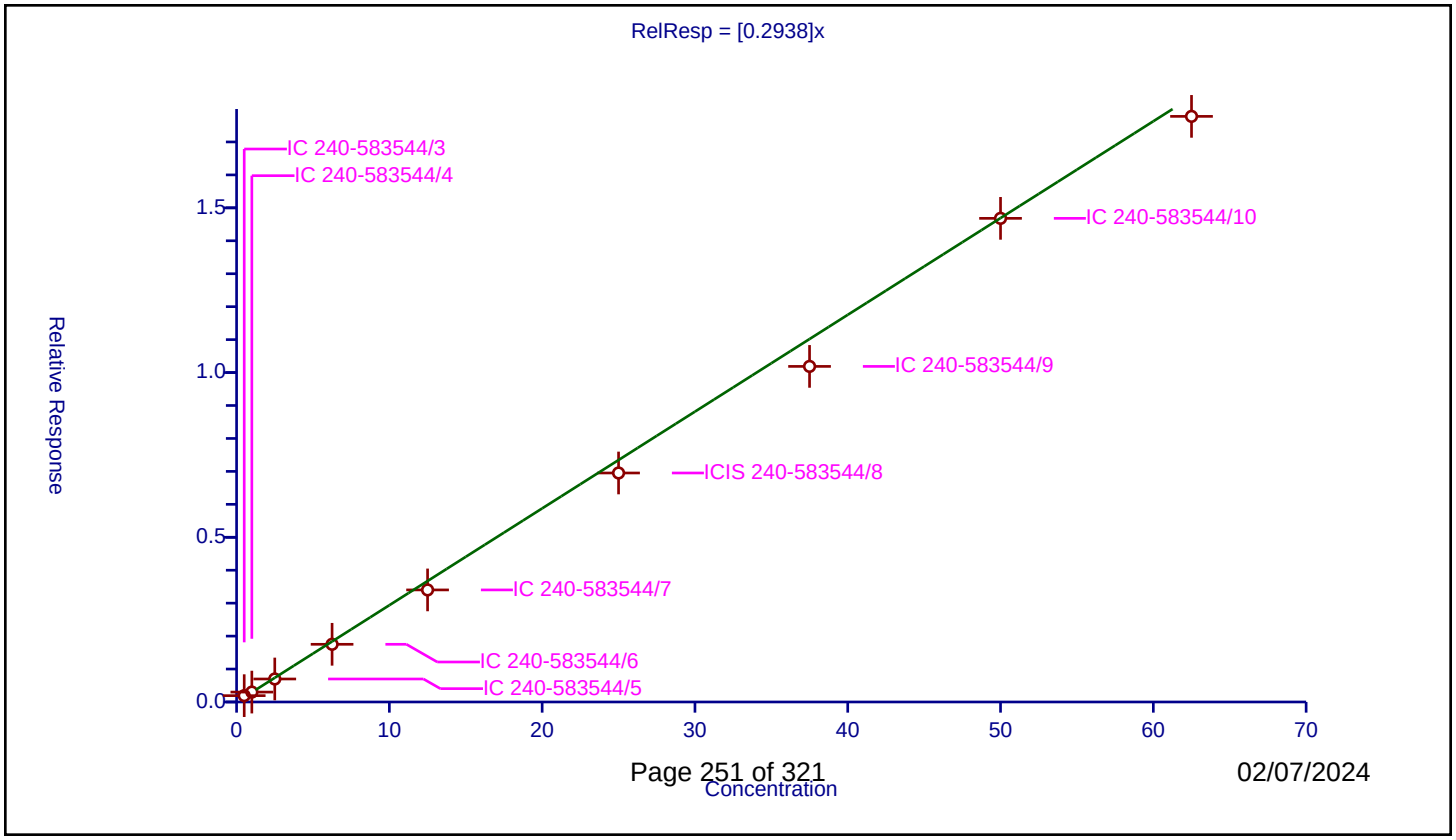
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2938 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 289000 |
| **Relative Standard Error:** | 12.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.192173 | 10.0 | 313260.0 | 0.384345 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.30039 | 10.0 | 298212.0 | 0.30039 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.698464 | 10.0 | 297825.0 | 0.279386 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.751192 | 10.0 | 292418.0 | 0.280191 | Y |
| 5 | IC 240-583544/7 | 12.5 | 3.401832 | 10.0 | 303316.0 | 0.272147 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 6.951583 | 10.0 | 301796.0 | 0.278063 | Y |
| 7 | IC 240-583544/9 | 37.5 | 10.187076 | 10.0 | 311584.0 | 0.271655 | Y |
| 8 | IC 240-583544/10 | 50.0 | 14.680788 | 10.0 | 305267.0 | 0.293616 | Y |
| 9 | IC 240-583544/11 | 62.5 | 17.776608 | 10.0 | 312482.0 | 0.284426 | Y |






02/07/2024

## Calibration / 1,2,3-Trichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

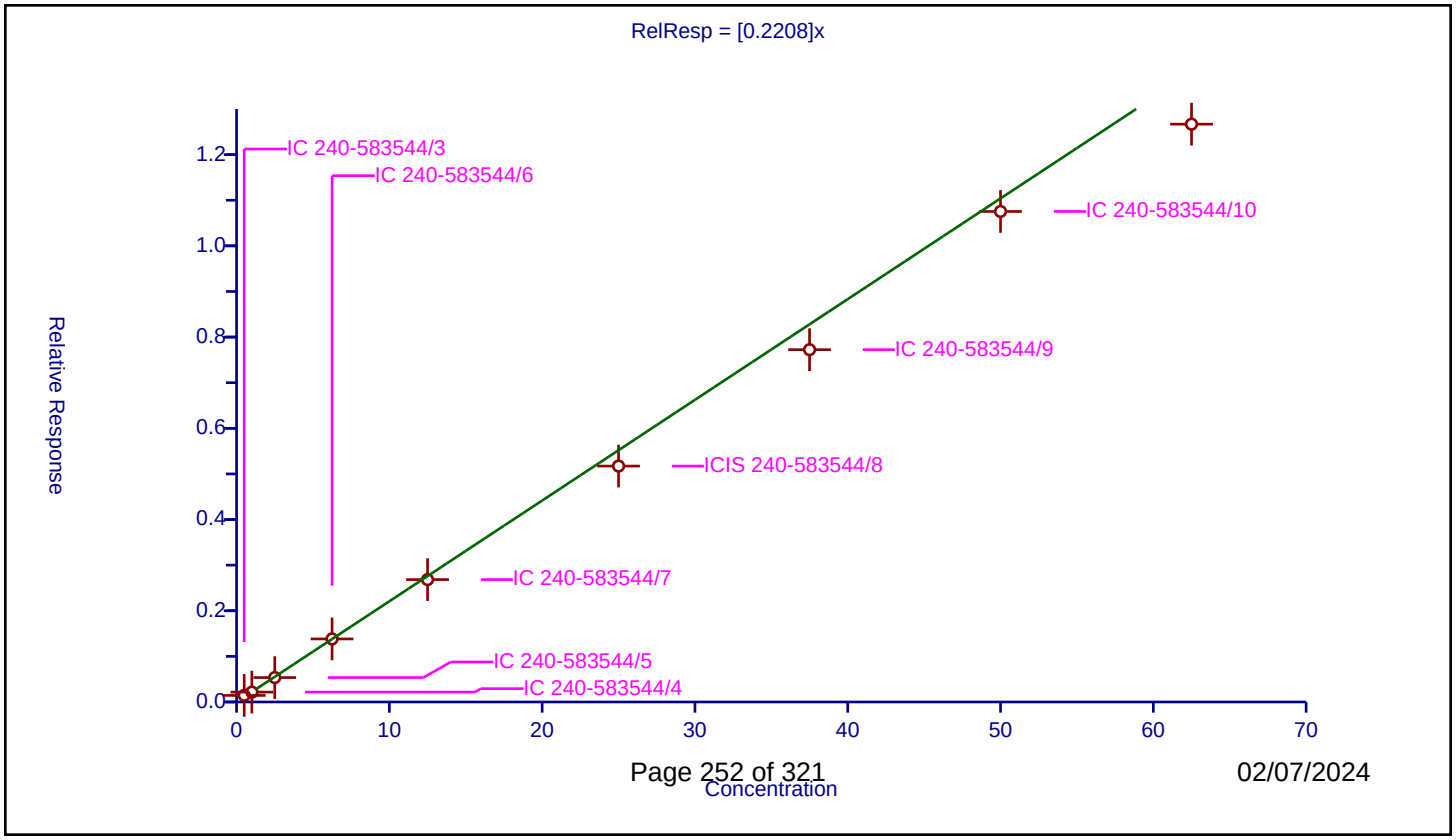
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2208 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 211000 |
| **Relative Standard Error:** | 12.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.144928 | 10.0 | 313260.0 | 0.289855 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.216859 | 10.0 | 298212.0 | 0.216859 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.534945 | 10.0 | 297825.0 | 0.213978 | Y |
| 4 | IC 240-583544/6 | 6.25 | 1.382576 | 10.0 | 292418.0 | 0.221212 | Y |
| 5 | IC 240-583544/7 | 12.5 | 2.682846 | 10.0 | 303316.0 | 0.214628 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 5.172037 | 10.0 | 301796.0 | 0.206881 | Y |
| 7 | IC 240-583544/9 | 37.5 | 7.724049 | 10.0 | 311584.0 | 0.205975 | Y |
| 8 | IC 240-583544/10 | 50.0 | 10.754061 | 10.0 | 305267.0 | 0.215081 | Y |
| 9 | IC 240-583544/11 | 62.5 | 12.668122 | 10.0 | 312482.0 | 0.20269 | Y |



## Calibration / N-Propylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

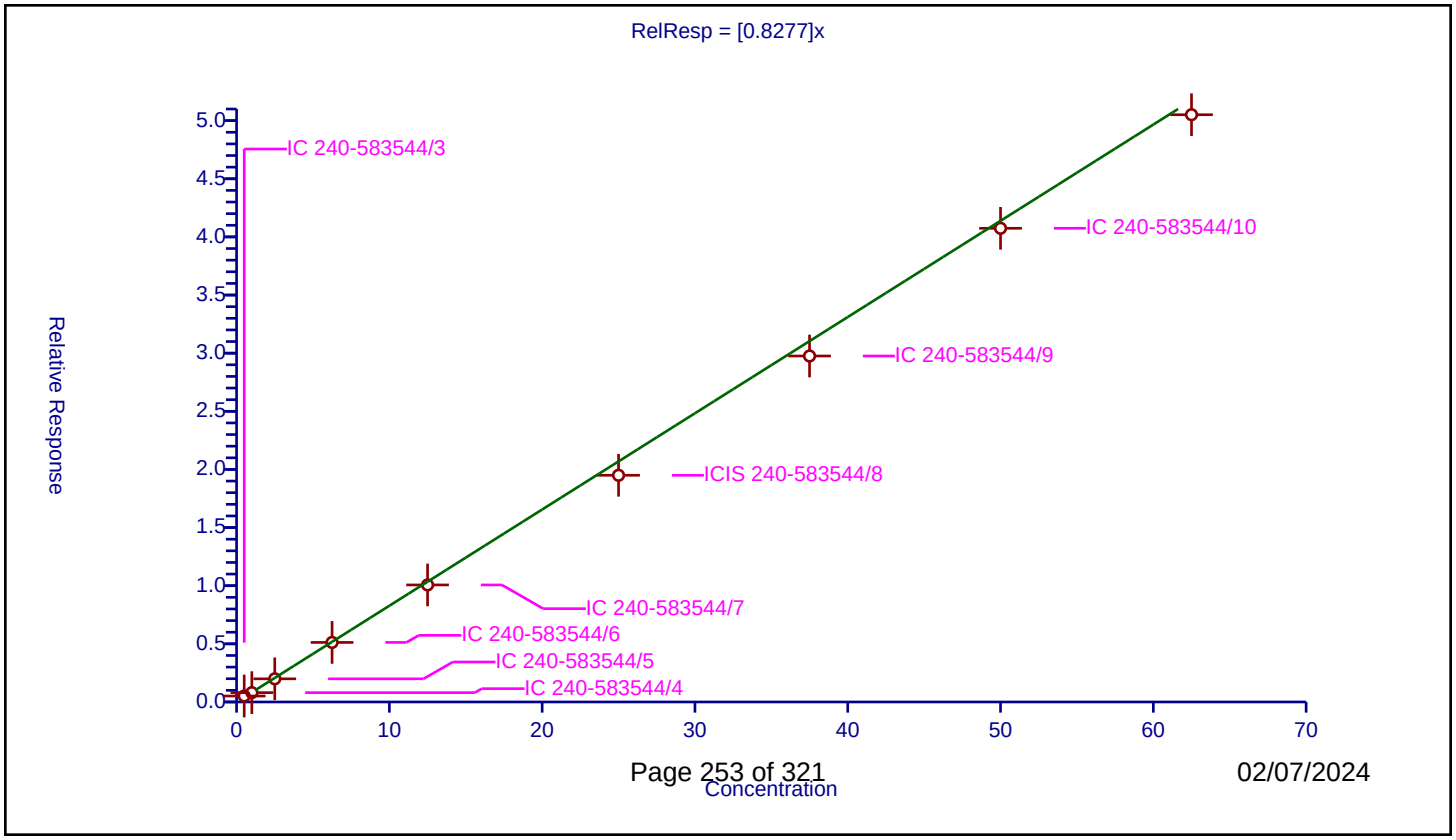
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8277 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 819000 |
| **Relative Standard Error:** | 9.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.512865 | 10.0 | 313260.0 | 1.025729 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.804763 | 10.0 | 298212.0 | 0.804763 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.99268 | 10.0 | 297825.0 | 0.797072 | Y |
| 4 | IC 240-583544/6 | 6.25 | 5.123282 | 10.0 | 292418.0 | 0.819725 | Y |
| 5 | IC 240-583544/7 | 12.5 | 10.066432 | 10.0 | 303316.0 | 0.805315 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 19.499529 | 10.0 | 301796.0 | 0.779981 | Y |
| 7 | IC 240-583544/9 | 37.5 | 29.756278 | 10.0 | 311584.0 | 0.793501 | Y |
| 8 | IC 240-583544/10 | 50.0 | 40.740925 | 10.0 | 305267.0 | 0.814819 | Y |
| 9 | IC 240-583544/11 | 62.5 | 50.509757 | 10.0 | 312482.0 | 0.808156 | Y |



## Calibration / 2-Chlorotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

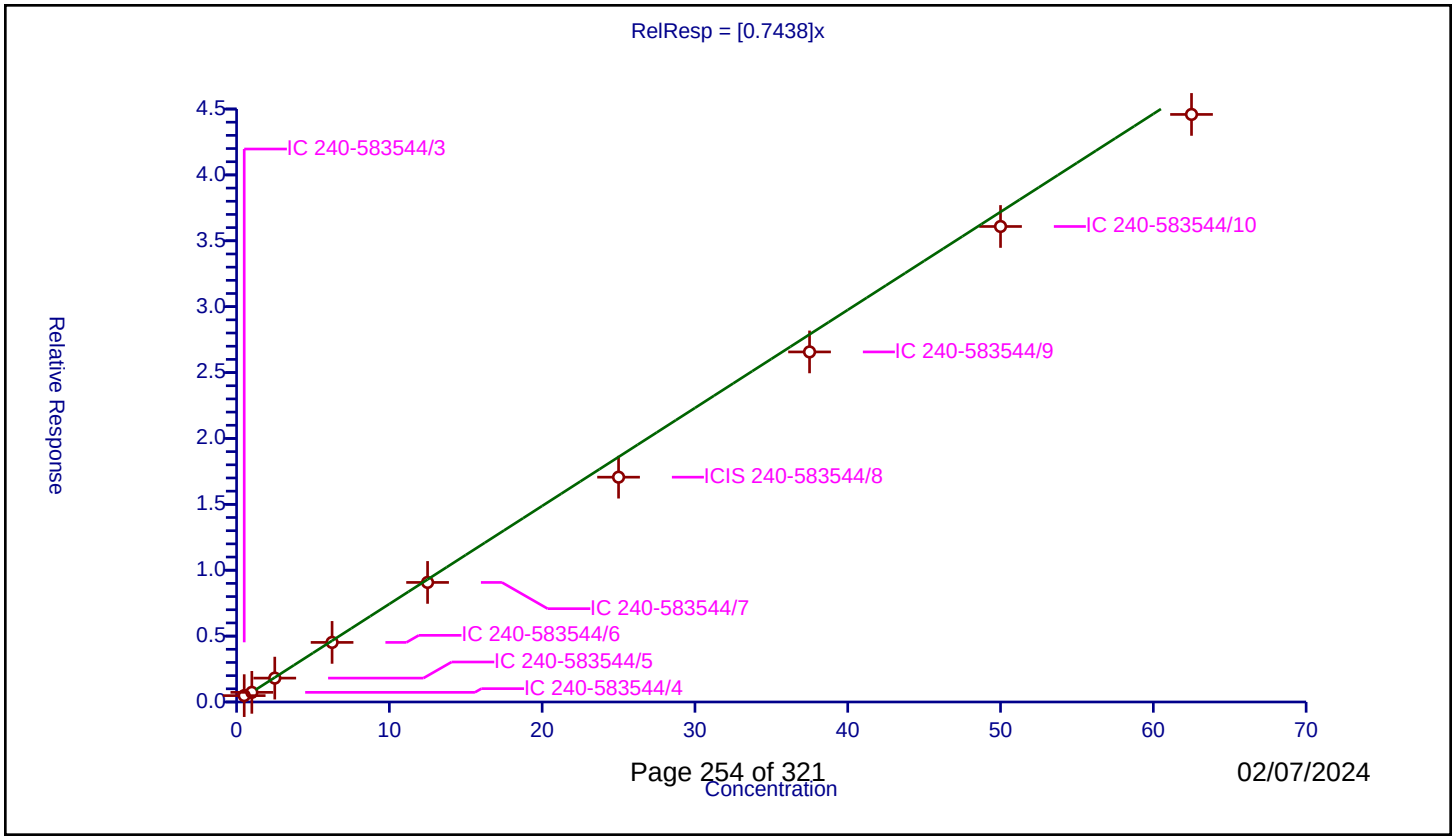
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7438 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 725000 |
| **Relative Standard Error:** | 11.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.4819 | 10.0 | 313260.0 | 0.9638 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.730722 | 10.0 | 298212.0 | 0.730722 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.811836 | 10.0 | 297825.0 | 0.724734 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.520994 | 10.0 | 292418.0 | 0.723359 | Y |
| 5 | IC 240-583544/7 | 12.5 | 9.072617 | 10.0 | 303316.0 | 0.725809 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 17.06063 | 10.0 | 301796.0 | 0.682425 | Y |
| 7 | IC 240-583544/9 | 37.5 | 26.565549 | 10.0 | 311584.0 | 0.708415 | Y |
| 8 | IC 240-583544/10 | 50.0 | 36.085329 | 10.0 | 305267.0 | 0.721707 | Y |
| 9 | IC 240-583544/11 | 62.5 | 44.589512 | 10.0 | 312482.0 | 0.713432 | Y |



## Calibration / 1,3,5-Trimethylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

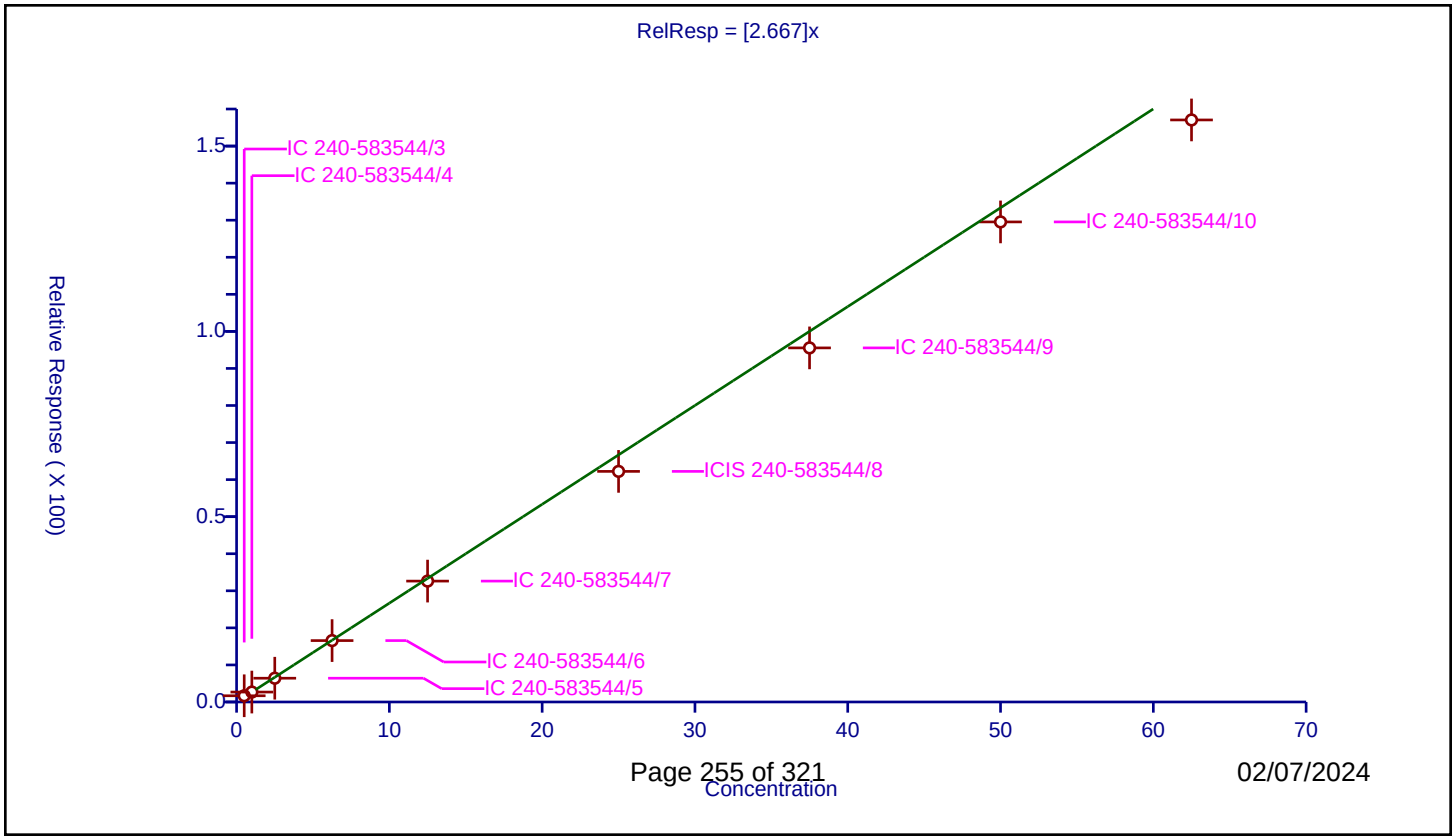
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.667 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2580000 |
| **Relative Standard Error:** | 9.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.677073 | 10.0 | 313260.0 | 3.354147 | Y |
| 2 | IC 240-583544/4 | 1.0 | 2.682622 | 10.0 | 298212.0 | 2.682622 | Y |
| 3 | IC 240-583544/5 | 2.5 | 6.415143 | 10.0 | 297825.0 | 2.566057 | Y |
| 4 | IC 240-583544/6 | 6.25 | 16.566046 | 10.0 | 292418.0 | 2.650567 | Y |
| 5 | IC 240-583544/7 | 12.5 | 32.621326 | 10.0 | 303316.0 | 2.609706 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 62.223886 | 10.0 | 301796.0 | 2.488955 | Y |
| 7 | IC 240-583544/9 | 37.5 | 95.541299 | 10.0 | 311584.0 | 2.547768 | Y |
| 8 | IC 240-583544/10 | 50.0 | 129.533654 | 10.0 | 305267.0 | 2.590673 | Y |
| 9 | IC 240-583544/11 | 62.5 | 157.05135 | 10.0 | 312482.0 | 2.512822 | Y |



## Calibration / 4-Chlorotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

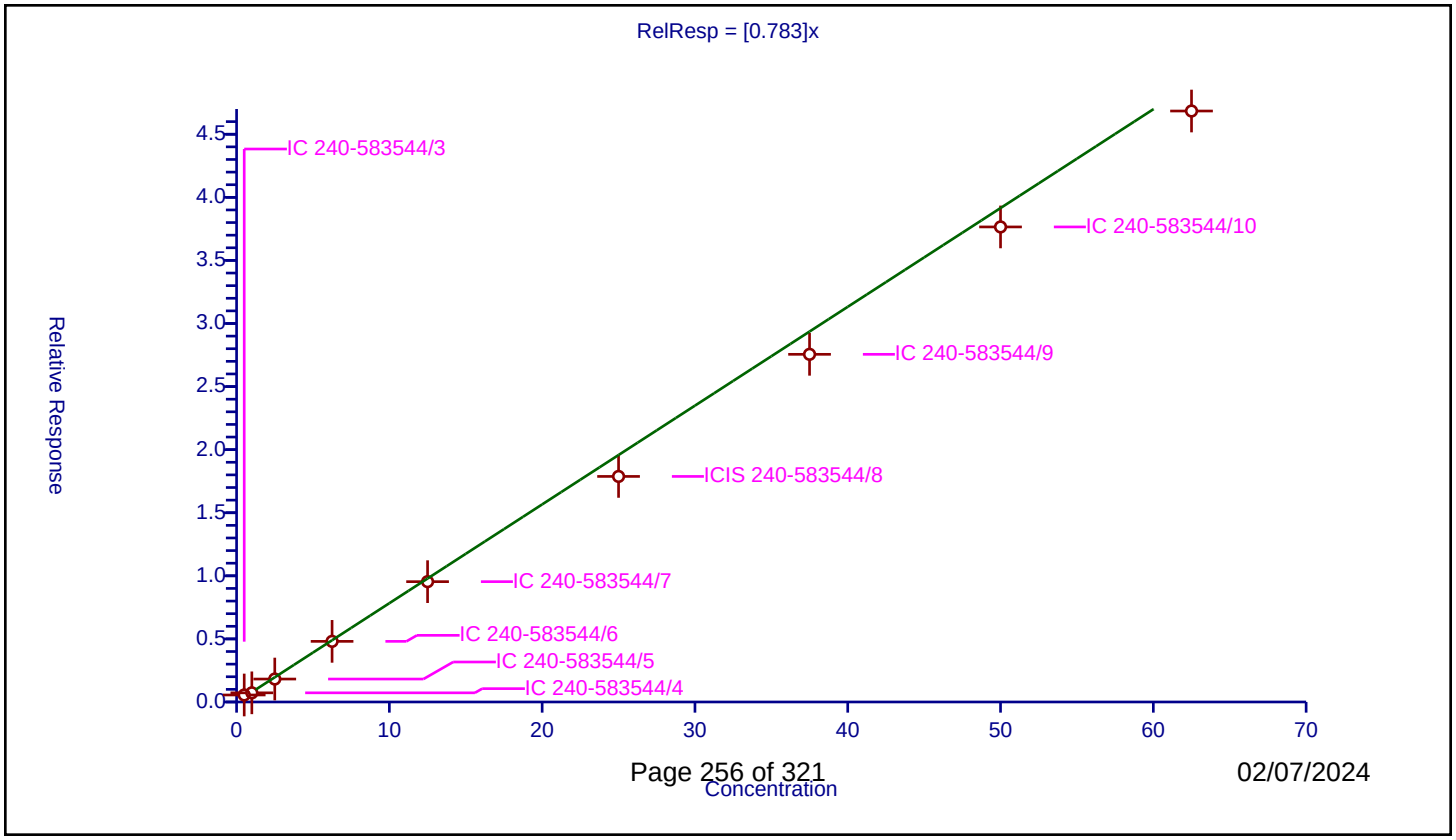
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.783 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 758000 |
| **Relative Standard Error:** | 15.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.963 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.554938 | 10.0 | 313260.0 | 1.109877 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.725122 | 10.0 | 298212.0 | 0.725122 | Y |
| 3 | IC 240-583544/5 | 2.5 | 1.819088 | 10.0 | 297825.0 | 0.727635 | Y |
| 4 | IC 240-583544/6 | 6.25 | 4.806031 | 10.0 | 292418.0 | 0.768965 | Y |
| 5 | IC 240-583544/7 | 12.5 | 9.536787 | 10.0 | 303316.0 | 0.762943 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 17.87807 | 10.0 | 301796.0 | 0.715123 | Y |
| 7 | IC 240-583544/9 | 37.5 | 27.557577 | 10.0 | 311584.0 | 0.734869 | Y |
| 8 | IC 240-583544/10 | 50.0 | 37.652743 | 10.0 | 305267.0 | 0.753055 | Y |
| 9 | IC 240-583544/11 | 62.5 | 46.84081 | 10.0 | 312482.0 | 0.749453 | Y |



## Calibration / tert-Butylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

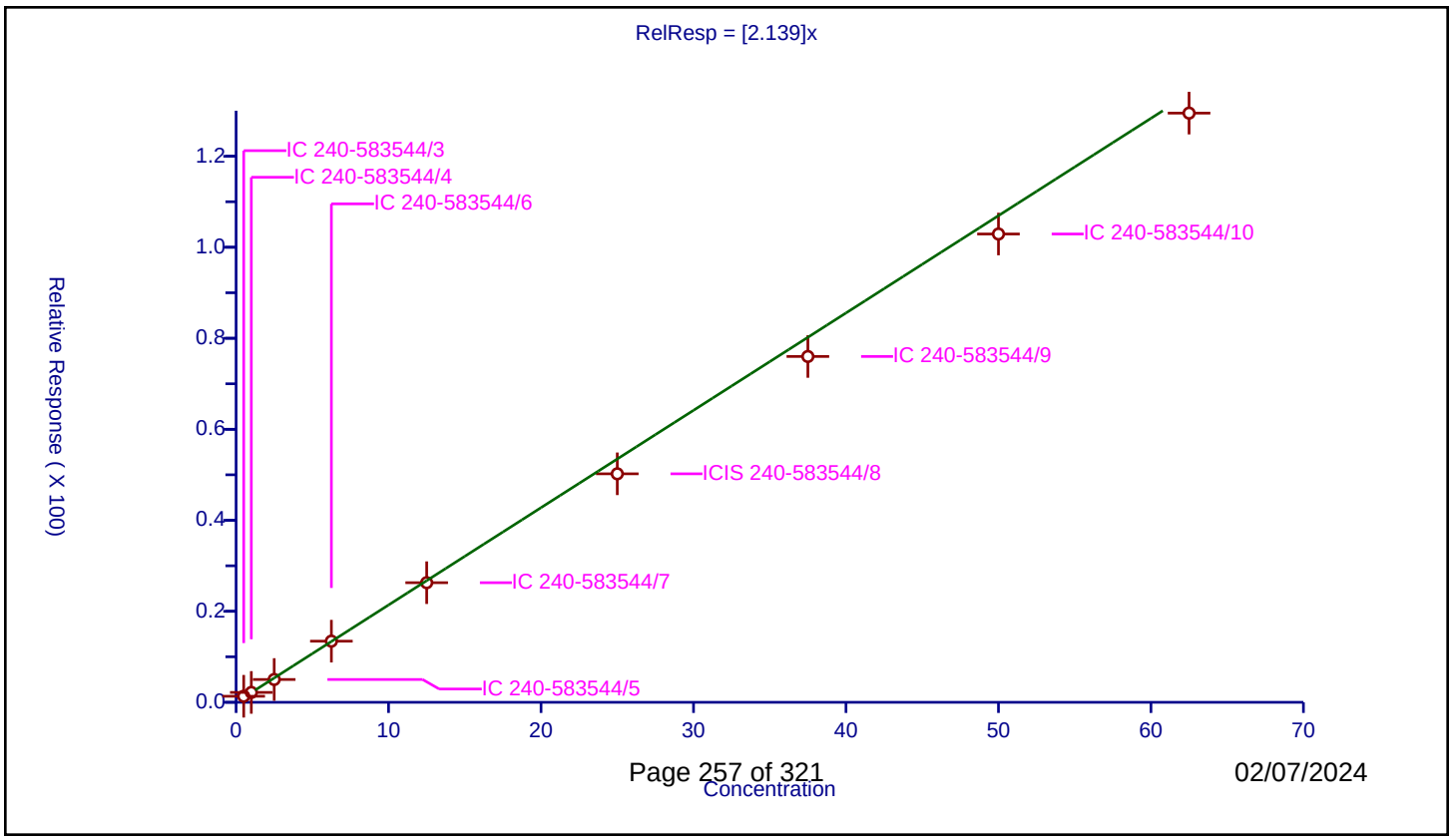
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.139 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2090000 |
| **Relative Standard Error:** | 9.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.32746 | 10.0 | 313260.0 | 2.654919 | Y |
| 2 | IC 240-583544/4 | 1.0 | 2.171677 | 10.0 | 298212.0 | 2.171677 | Y |
| 3 | IC 240-583544/5 | 2.5 | 5.014018 | 10.0 | 297825.0 | 2.005607 | Y |
| 4 | IC 240-583544/6 | 6.25 | 13.438605 | 10.0 | 292418.0 | 2.150177 | Y |
| 5 | IC 240-583544/7 | 12.5 | 26.285392 | 10.0 | 303316.0 | 2.102831 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 50.214947 | 10.0 | 301796.0 | 2.008598 | Y |
| 7 | IC 240-583544/9 | 37.5 | 75.997997 | 10.0 | 311584.0 | 2.026613 | Y |
| 8 | IC 240-583544/10 | 50.0 | 102.91702 | 10.0 | 305267.0 | 2.05834 | Y |
| 9 | IC 240-583544/11 | 62.5 | 129.481954 | 10.0 | 312482.0 | 2.071711 | Y |



## Calibration / 1,2,4-Trimethylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

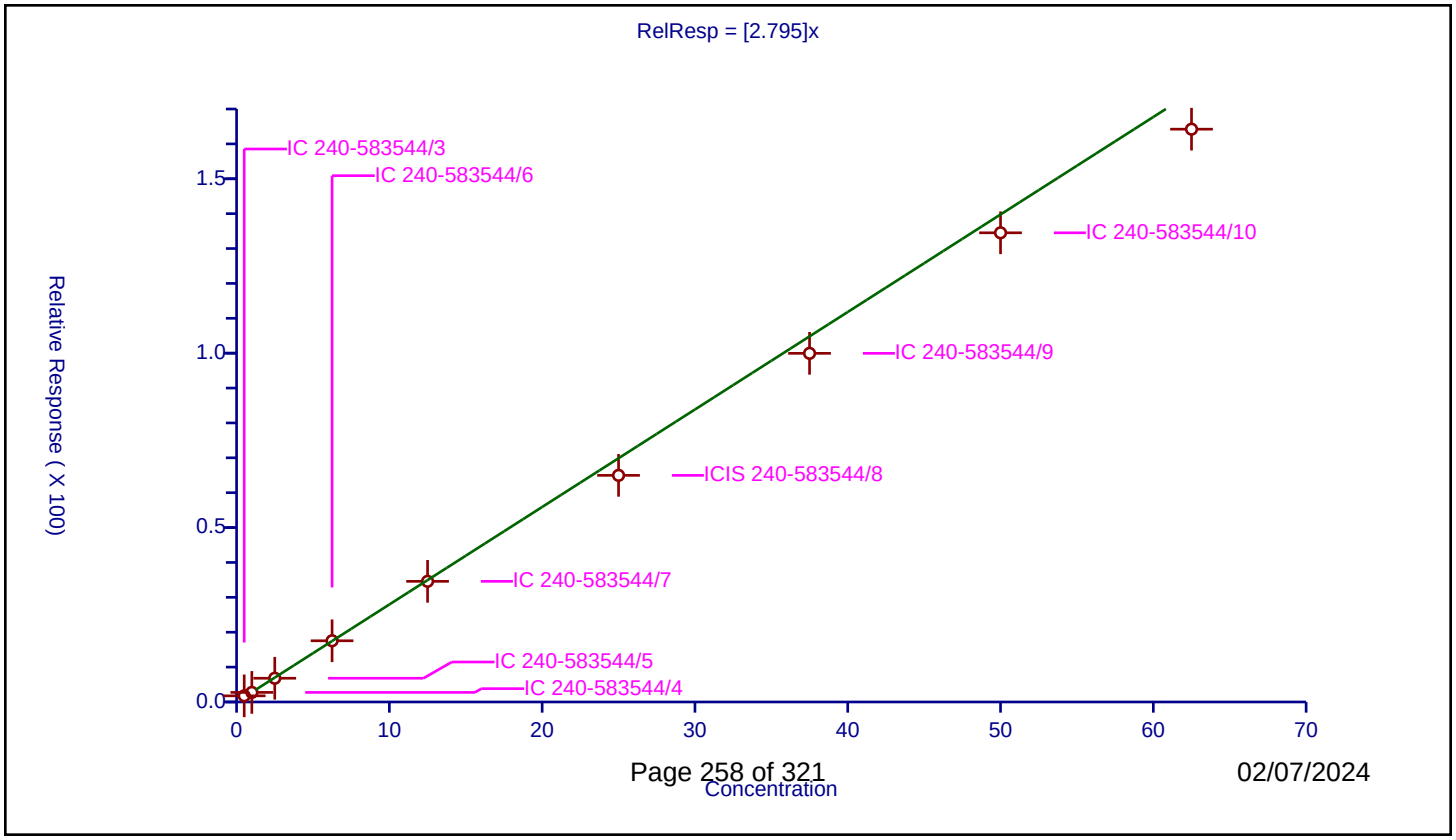
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.795 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2700000 |
| **Relative Standard Error:** | 10.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.764158 | 10.0 | 313260.0 | 3.528315 | Y |
| 2 | IC 240-583544/4 | 1.0 | 2.747743 | 10.0 | 298212.0 | 2.747743 | Y |
| 3 | IC 240-583544/5 | 2.5 | 6.809972 | 10.0 | 297825.0 | 2.723989 | Y |
| 4 | IC 240-583544/6 | 6.25 | 17.547176 | 10.0 | 292418.0 | 2.807548 | Y |
| 5 | IC 240-583544/7 | 12.5 | 34.588581 | 10.0 | 303316.0 | 2.767086 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 64.974718 | 10.0 | 301796.0 | 2.598989 | Y |
| 7 | IC 240-583544/9 | 37.5 | 99.955165 | 10.0 | 311584.0 | 2.665471 | Y |
| 8 | IC 240-583544/10 | 50.0 | 134.512279 | 10.0 | 305267.0 | 2.690246 | Y |
| 9 | IC 240-583544/11 | 62.5 | 164.219795 | 10.0 | 312482.0 | 2.627517 | Y |



## Calibration / sec-Butylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

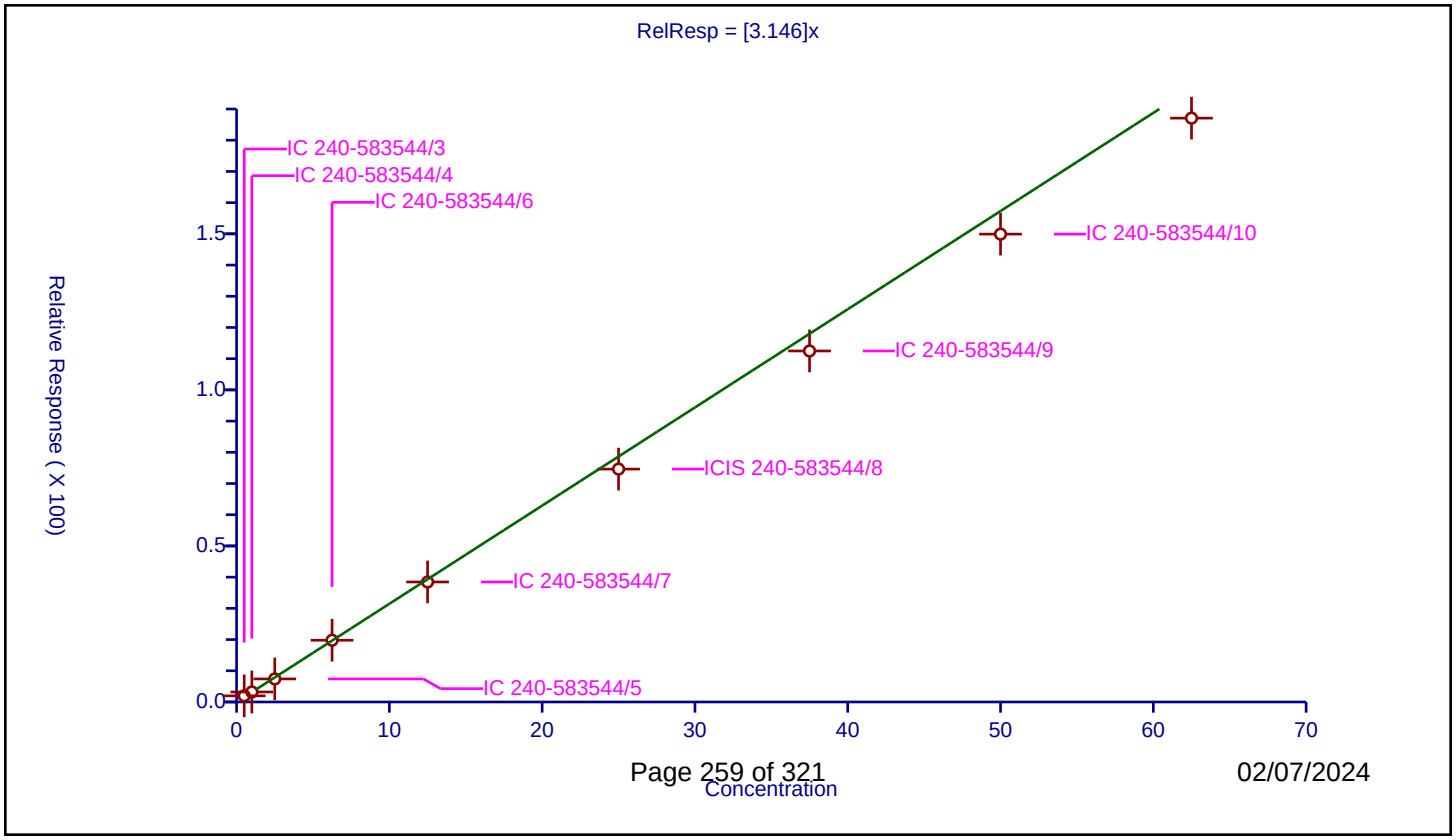
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 3.146 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 3050000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.966035 | 10.0 | 313260.0 | 3.932069 | Y |
| 2 | IC 240-583544/4 | 1.0 | 3.20869 | 10.0 | 298212.0 | 3.20869 | Y |
| 3 | IC 240-583544/5 | 2.5 | 7.388534 | 10.0 | 297825.0 | 2.955413 | Y |
| 4 | IC 240-583544/6 | 6.25 | 19.78859 | 10.0 | 292418.0 | 3.166174 | Y |
| 5 | IC 240-583544/7 | 12.5 | 38.451977 | 10.0 | 303316.0 | 3.076158 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 74.619279 | 10.0 | 301796.0 | 2.984771 | Y |
| 7 | IC 240-583544/9 | 37.5 | 112.47272 | 10.0 | 311584.0 | 2.999273 | Y |
| 8 | IC 240-583544/10 | 50.0 | 149.914599 | 10.0 | 305267.0 | 2.998292 | Y |
| 9 | IC 240-583544/11 | 62.5 | 187.078744 | 10.0 | 312482.0 | 2.99326 | Y |



## Calibration / 1,3-Dichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

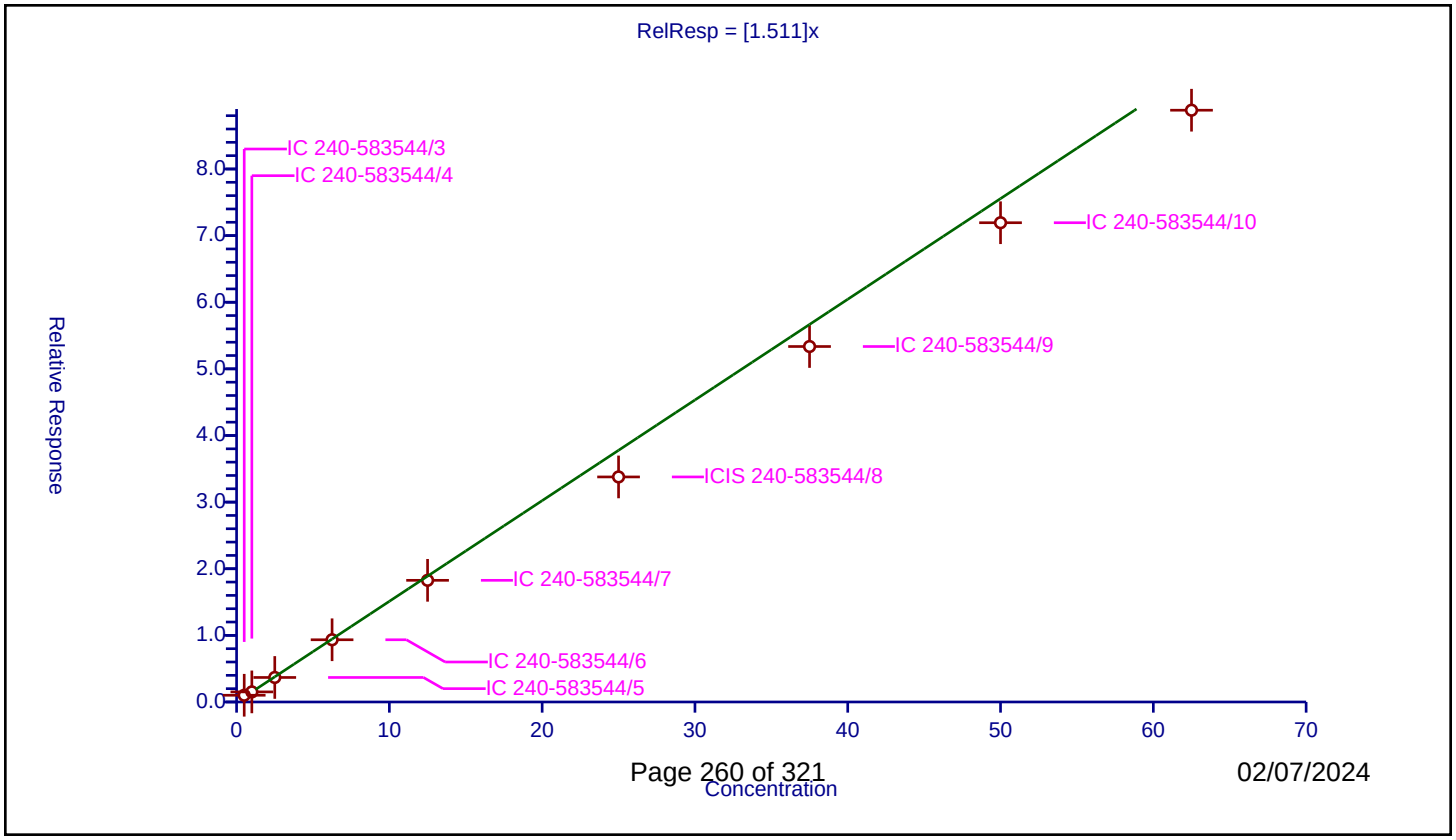
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.511 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1450000 |
| **Relative Standard Error:** | 13.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.975 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.011875 | 10.0 | 313260.0 | 2.02375 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.513789 | 10.0 | 298212.0 | 1.513789 | Y |
| 3 | IC 240-583544/5 | 2.5 | 3.681692 | 10.0 | 297825.0 | 1.472677 | Y |
| 4 | IC 240-583544/6 | 6.25 | 9.341388 | 10.0 | 292418.0 | 1.494622 | Y |
| 5 | IC 240-583544/7 | 12.5 | 18.25967 | 10.0 | 303316.0 | 1.460774 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 33.779341 | 10.0 | 301796.0 | 1.351174 | Y |
| 7 | IC 240-583544/9 | 37.5 | 53.355949 | 10.0 | 311584.0 | 1.422825 | Y |
| 8 | IC 240-583544/10 | 50.0 | 71.932833 | 10.0 | 305267.0 | 1.438657 | Y |
| 9 | IC 240-583544/11 | 62.5 | 88.818108 | 10.0 | 312482.0 | 1.42109 | Y |



## Calibration / 4-Isopropyltoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

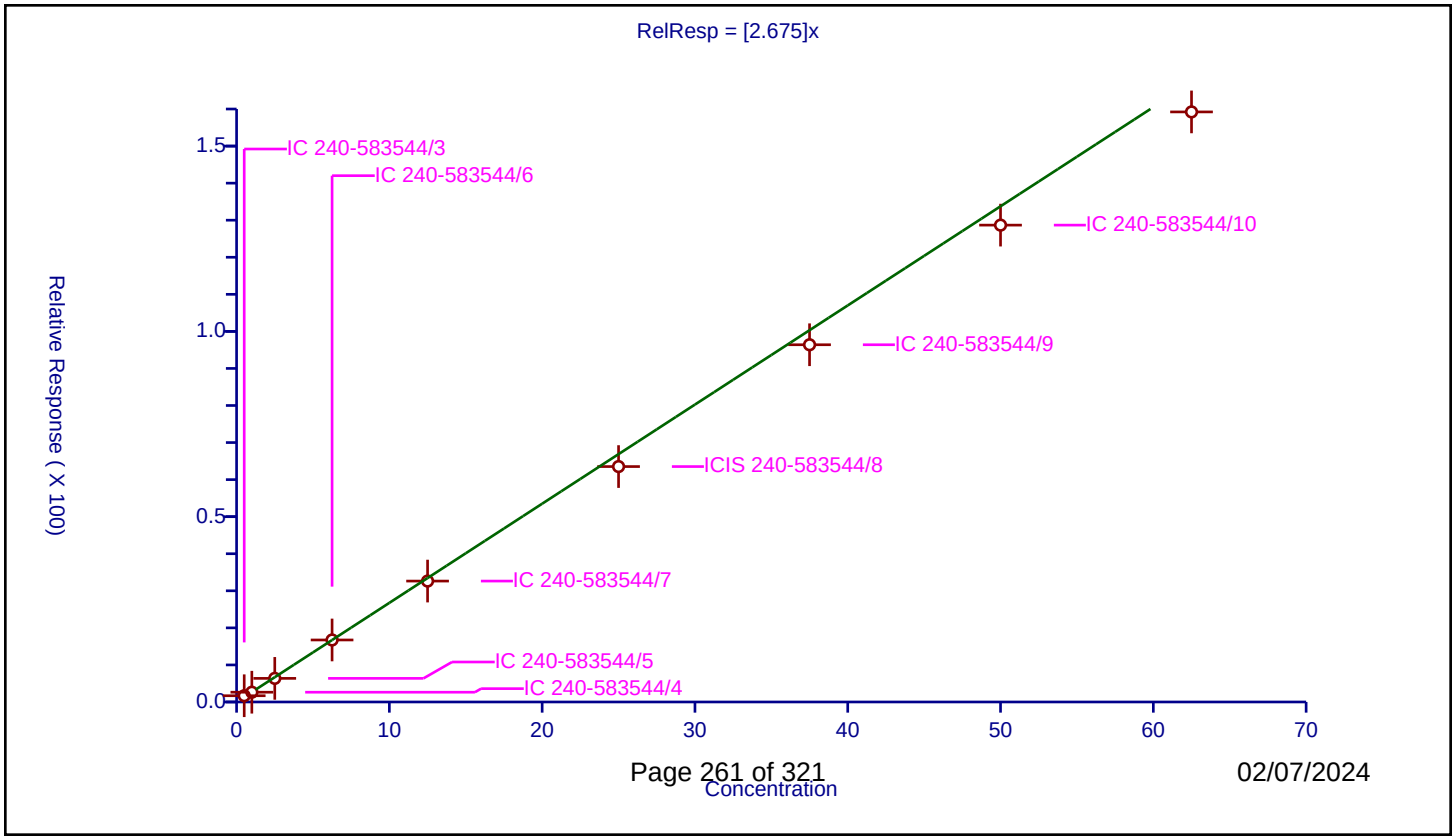
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.675 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2600000 |
| **Relative Standard Error:** | 9.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.684575 | 10.0 | 313260.0 | 3.36915 | Y |
| 2 | IC 240-583544/4 | 1.0 | 2.637687 | 10.0 | 298212.0 | 2.637687 | Y |
| 3 | IC 240-583544/5 | 2.5 | 6.372232 | 10.0 | 297825.0 | 2.548893 | Y |
| 4 | IC 240-583544/6 | 6.25 | 16.731597 | 10.0 | 292418.0 | 2.677055 | Y |
| 5 | IC 240-583544/7 | 12.5 | 32.625974 | 10.0 | 303316.0 | 2.610078 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 63.525627 | 10.0 | 301796.0 | 2.541025 | Y |
| 7 | IC 240-583544/9 | 37.5 | 96.39115 | 10.0 | 311584.0 | 2.570431 | Y |
| 8 | IC 240-583544/10 | 50.0 | 128.669525 | 10.0 | 305267.0 | 2.573391 | Y |
| 9 | IC 240-583544/11 | 62.5 | 159.216723 | 10.0 | 312482.0 | 2.547468 | Y |



## Calibration / 1,4-Dichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

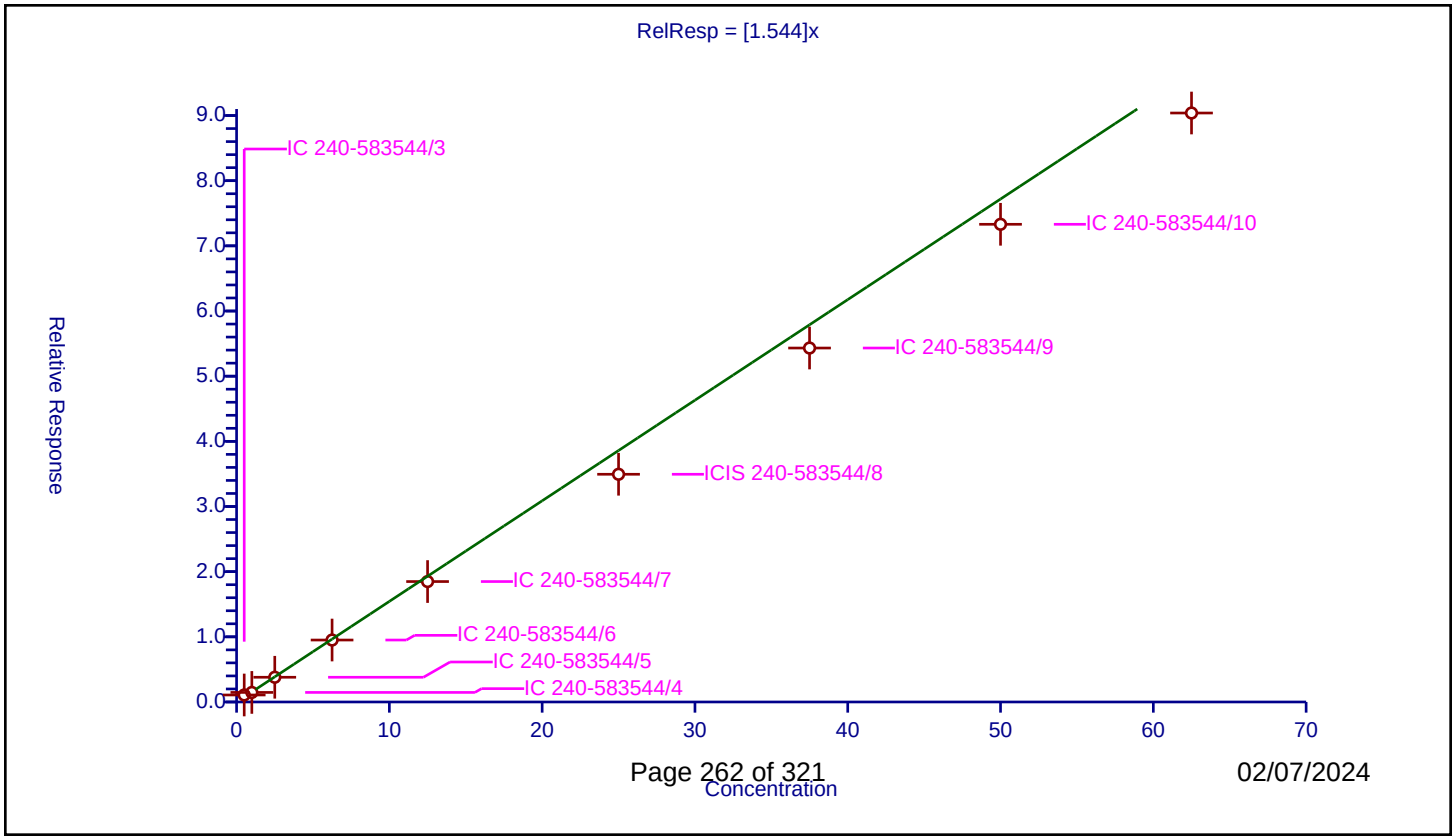
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.544 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1470000 |
| **Relative Standard Error:** | 14.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.967 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.075241 | 10.0 | 313260.0 | 2.150482 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.465266 | 10.0 | 298212.0 | 1.465266 | Y |
| 3 | IC 240-583544/5 | 2.5 | 3.797196 | 10.0 | 297825.0 | 1.518879 | Y |
| 4 | IC 240-583544/6 | 6.25 | 9.508478 | 10.0 | 292418.0 | 1.521356 | Y |
| 5 | IC 240-583544/7 | 12.5 | 18.484584 | 10.0 | 303316.0 | 1.478767 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 34.945095 | 10.0 | 301796.0 | 1.397804 | Y |
| 7 | IC 240-583544/9 | 37.5 | 54.320697 | 10.0 | 311584.0 | 1.448552 | Y |
| 8 | IC 240-583544/10 | 50.0 | 73.310545 | 10.0 | 305267.0 | 1.466211 | Y |
| 9 | IC 240-583544/11 | 62.5 | 90.384086 | 10.0 | 312482.0 | 1.446145 | Y |



## Calibration / n-Butylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

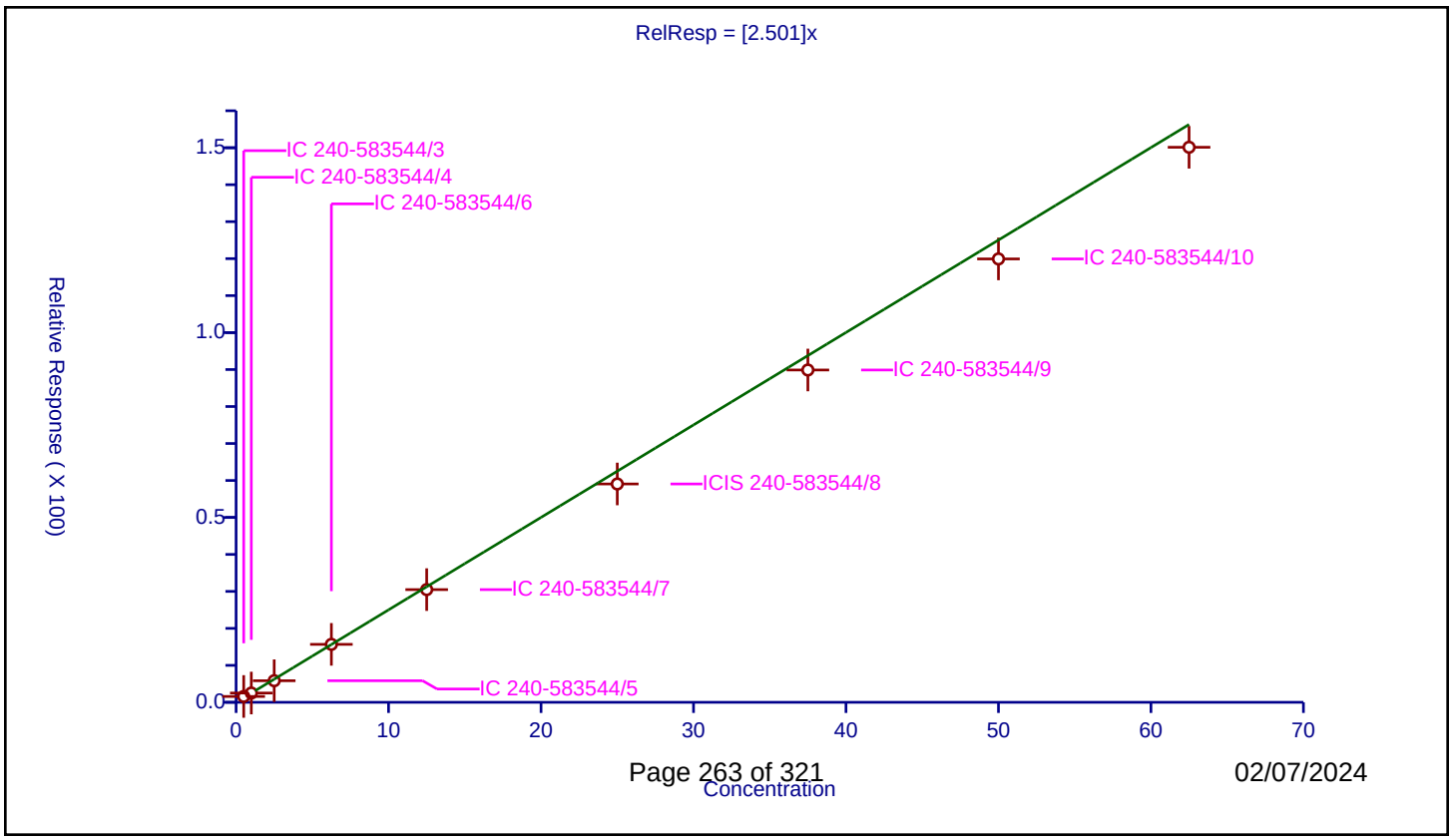
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 2.501 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 2440000 |
| **Relative Standard Error:** | 10.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.578529 | 10.0 | 313260.0 | 3.157058 | Y |
| 2 | IC 240-583544/4 | 1.0 | 2.508484 | 10.0 | 298212.0 | 2.508484 | Y |
| 3 | IC 240-583544/5 | 2.5 | 5.837153 | 10.0 | 297825.0 | 2.334861 | Y |
| 4 | IC 240-583544/6 | 6.25 | 15.673078 | 10.0 | 292418.0 | 2.507692 | Y |
| 5 | IC 240-583544/7 | 12.5 | 30.480027 | 10.0 | 303316.0 | 2.438402 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 59.054726 | 10.0 | 301796.0 | 2.362189 | Y |
| 7 | IC 240-583544/9 | 37.5 | 89.878556 | 10.0 | 311584.0 | 2.396761 | Y |
| 8 | IC 240-583544/10 | 50.0 | 119.922101 | 10.0 | 305267.0 | 2.398442 | Y |
| 9 | IC 240-583544/11 | 62.5 | 150.122407 | 10.0 | 312482.0 | 2.401959 | Y |



## Calibration / 1,2-Dichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

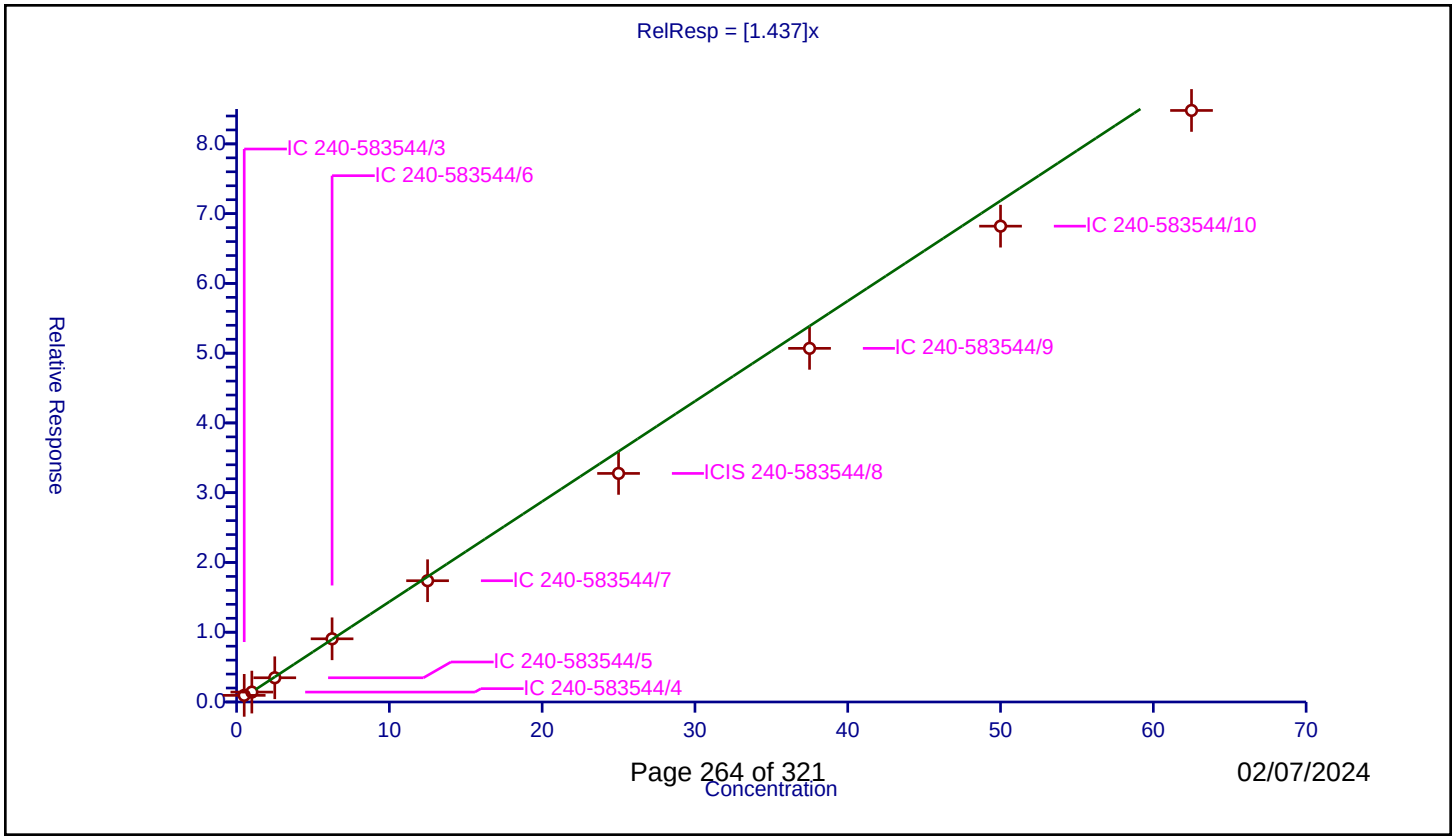
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.437 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1380000 |
| **Relative Standard Error:** | 12.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.977 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.950297 | 10.0 | 313260.0 | 1.900594 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.418789 | 10.0 | 298212.0 | 1.418789 | Y |
| 3 | IC 240-583544/5 | 2.5 | 3.473449 | 10.0 | 297825.0 | 1.38938 | Y |
| 4 | IC 240-583544/6 | 6.25 | 9.058881 | 10.0 | 292418.0 | 1.449421 | Y |
| 5 | IC 240-583544/7 | 12.5 | 17.384378 | 10.0 | 303316.0 | 1.39075 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 32.765477 | 10.0 | 301796.0 | 1.310619 | Y |
| 7 | IC 240-583544/9 | 37.5 | 50.691948 | 10.0 | 311584.0 | 1.351785 | Y |
| 8 | IC 240-583544/10 | 50.0 | 68.206455 | 10.0 | 305267.0 | 1.364129 | Y |
| 9 | IC 240-583544/11 | 62.5 | 84.793492 | 10.0 | 312482.0 | 1.356696 | Y |



## Calibration / 1,2-Dibromo-3-Chloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

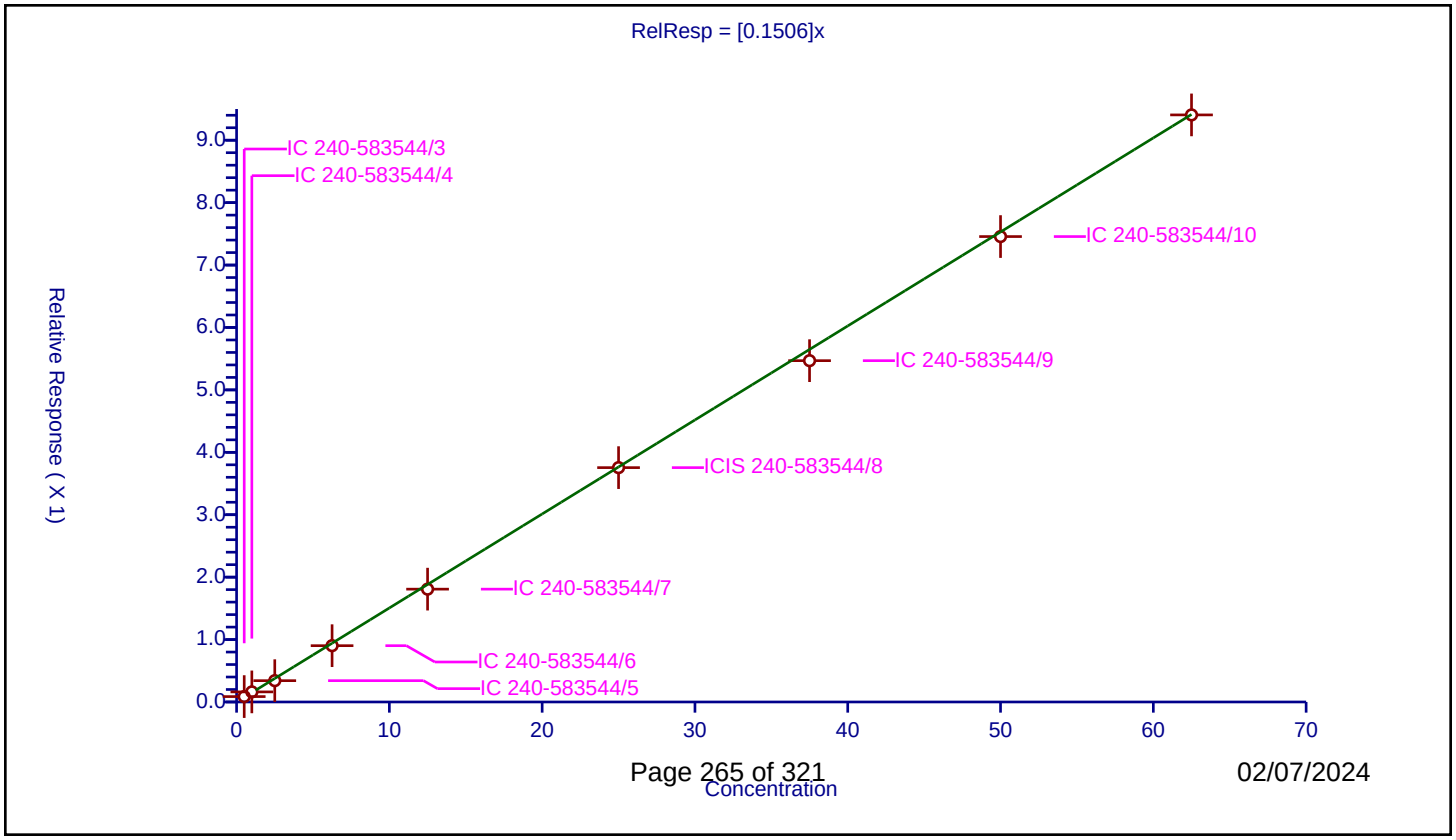
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1506 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 152000 |
| **Relative Standard Error:** | 7.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.086318 | 10.0 | 313260.0 | 0.172636 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.161596 | 10.0 | 298212.0 | 0.161596 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.341744 | 10.0 | 297825.0 | 0.136698 | Y |
| 4 | IC 240-583544/6 | 6.25 | 0.901962 | 10.0 | 292418.0 | 0.144314 | Y |
| 5 | IC 240-583544/7 | 12.5 | 1.807916 | 10.0 | 303316.0 | 0.144633 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 3.754788 | 10.0 | 301796.0 | 0.150192 | Y |
| 7 | IC 240-583544/9 | 37.5 | 5.468253 | 10.0 | 311584.0 | 0.14582 | Y |
| 8 | IC 240-583544/10 | 50.0 | 7.456587 | 10.0 | 305267.0 | 0.149132 | Y |
| 9 | IC 240-583544/11 | 62.5 | 9.405406 | 10.0 | 312482.0 | 0.150486 | Y |



## Calibration / 1,2,4-Trichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

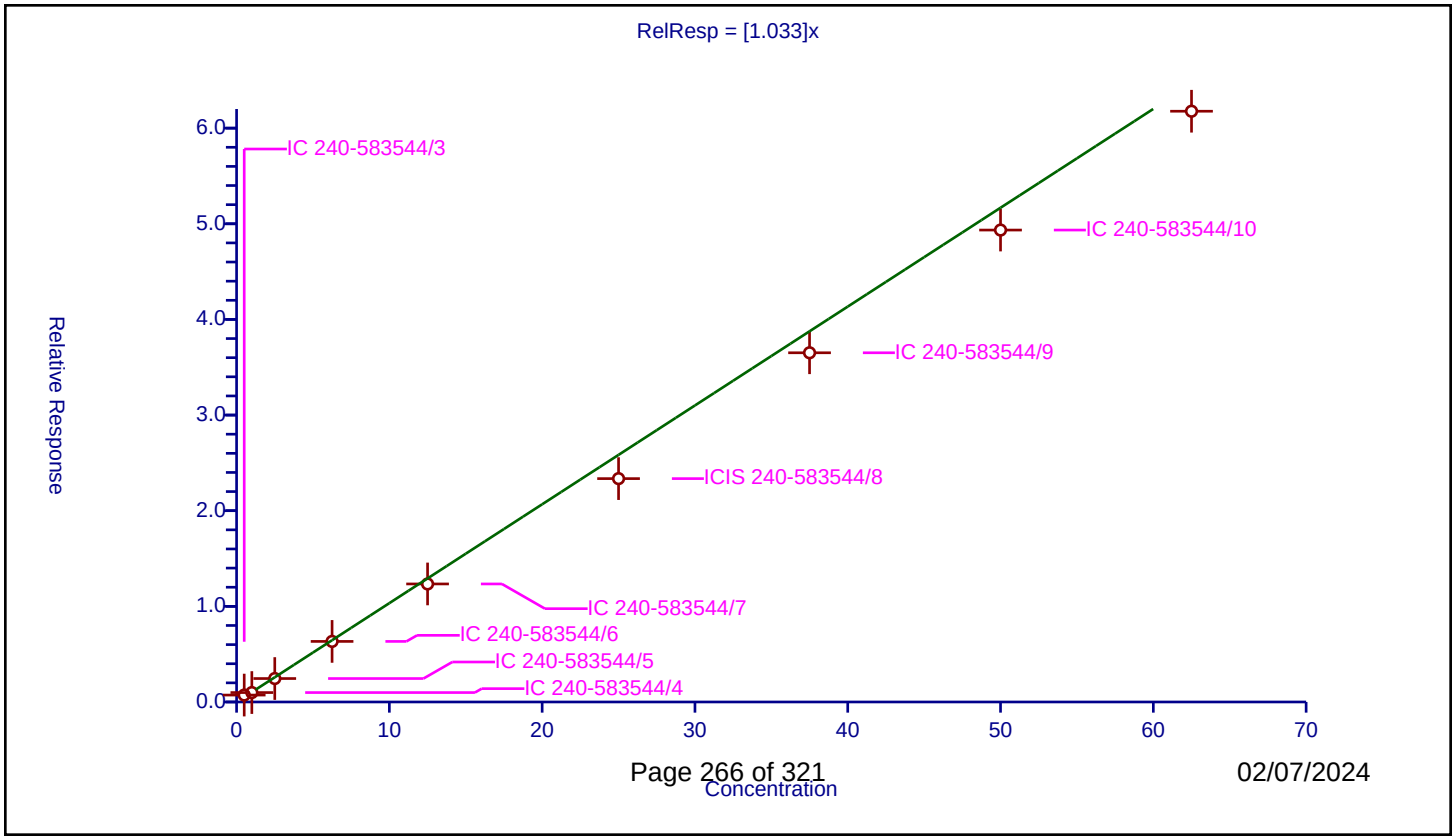
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.033 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 998000 |
| **Relative Standard Error:** | 15.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.965 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.724861 | 10.0 | 313260.0 | 1.449722 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.987016 | 10.0 | 298212.0 | 0.987016 | Y |
| 3 | IC 240-583544/5 | 2.5 | 2.453051 | 10.0 | 297825.0 | 0.981221 | Y |
| 4 | IC 240-583544/6 | 6.25 | 6.332271 | 10.0 | 292418.0 | 1.013163 | Y |
| 5 | IC 240-583544/7 | 12.5 | 12.34076 | 10.0 | 303316.0 | 0.987261 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 23.35528 | 10.0 | 301796.0 | 0.934211 | Y |
| 7 | IC 240-583544/9 | 37.5 | 36.512818 | 10.0 | 311584.0 | 0.973675 | Y |
| 8 | IC 240-583544/10 | 50.0 | 49.343689 | 10.0 | 305267.0 | 0.986874 | Y |
| 9 | IC 240-583544/11 | 62.5 | 61.769894 | 10.0 | 312482.0 | 0.988318 | Y |



## Calibration / Hexachlorobutadiene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

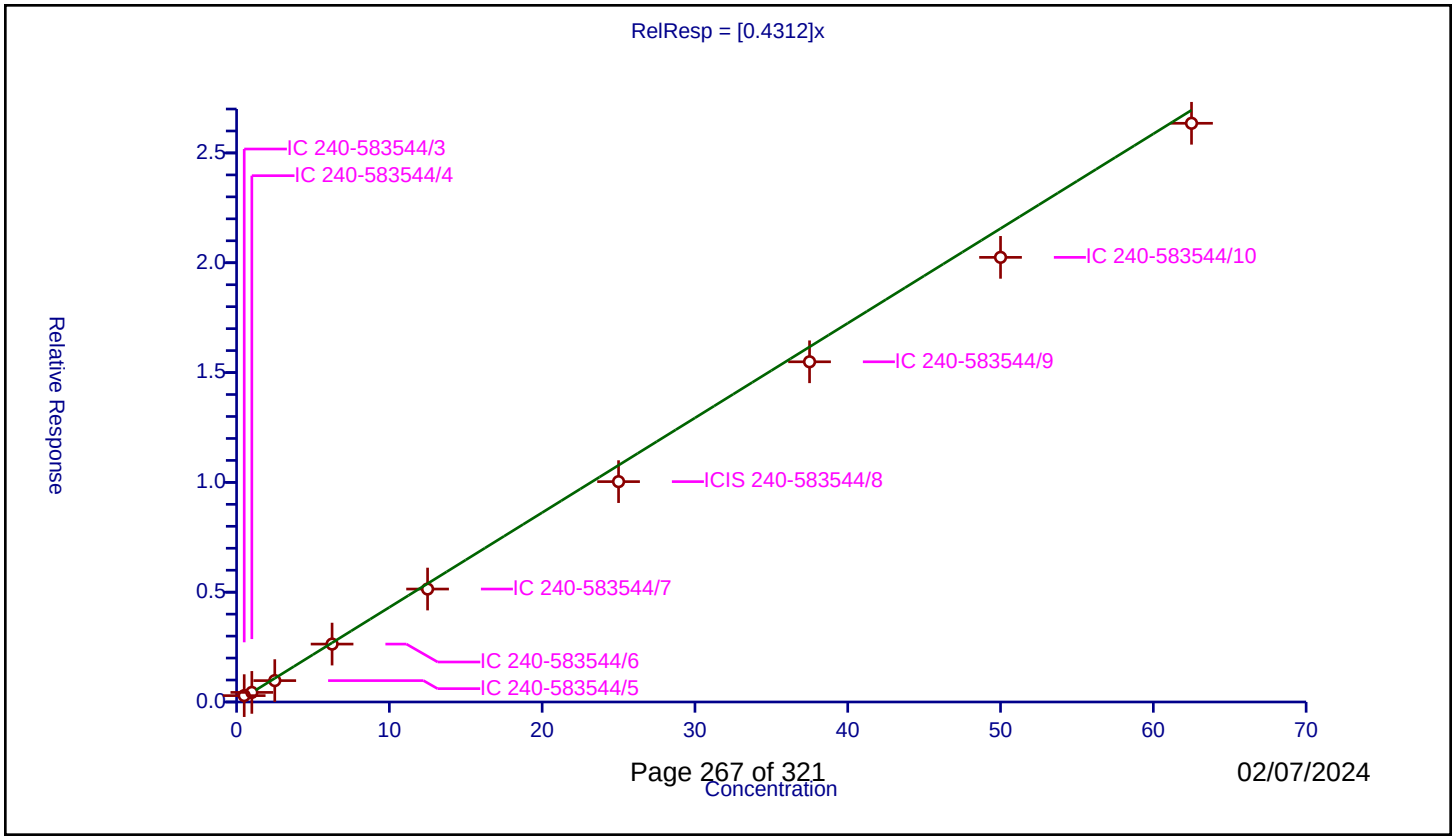
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4312 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 421000 |
| **Relative Standard Error:** | 13.3 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.974 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.290047 | 10.0 | 313260.0 | 0.580093 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.436736 | 10.0 | 298212.0 | 0.436736 | Y |
| 3 | IC 240-583544/5 | 2.5 | 0.97376 | 10.0 | 297825.0 | 0.389504 | Y |
| 4 | IC 240-583544/6 | 6.25 | 2.636158 | 10.0 | 292418.0 | 0.421785 | Y |
| 5 | IC 240-583544/7 | 12.5 | 5.143184 | 10.0 | 303316.0 | 0.411455 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 10.033566 | 10.0 | 301796.0 | 0.401343 | Y |
| 7 | IC 240-583544/9 | 37.5 | 15.489948 | 10.0 | 311584.0 | 0.413065 | Y |
| 8 | IC 240-583544/10 | 50.0 | 20.245293 | 10.0 | 305267.0 | 0.404906 | Y |
| 9 | IC 240-583544/11 | 62.5 | 26.350766 | 10.0 | 312482.0 | 0.421612 | Y |



## Calibration / Naphthalene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

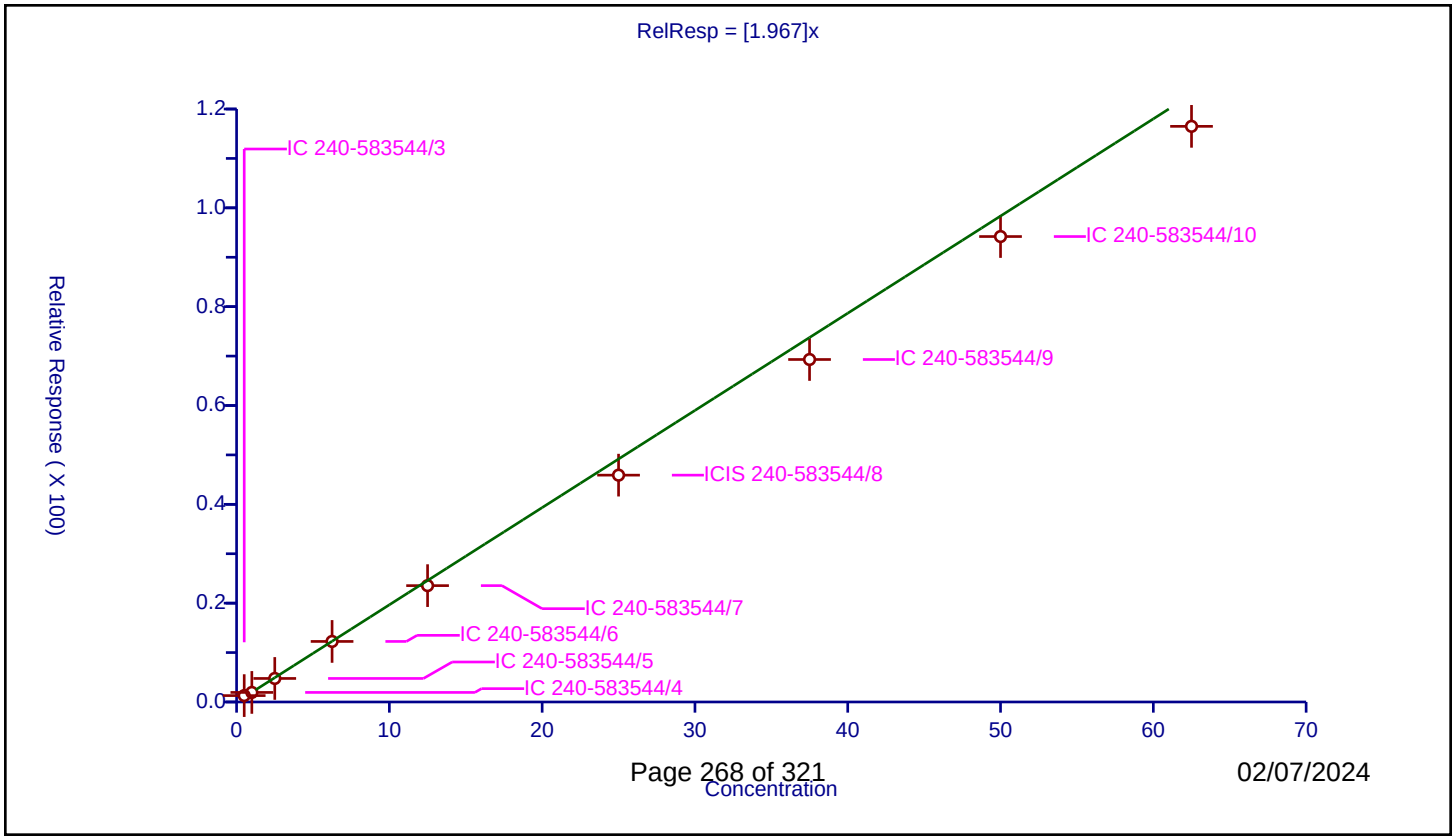
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.967 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1900000 |
| **Relative Standard Error:** | 12.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.979 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 1.292537 | 10.0 | 313260.0 | 2.585073 | Y |
| 2 | IC 240-583544/4 | 1.0 | 1.934798 | 10.0 | 298212.0 | 1.934798 | Y |
| 3 | IC 240-583544/5 | 2.5 | 4.761454 | 10.0 | 297825.0 | 1.904582 | Y |
| 4 | IC 240-583544/6 | 6.25 | 12.252905 | 10.0 | 292418.0 | 1.960465 | Y |
| 5 | IC 240-583544/7 | 12.5 | 23.549664 | 10.0 | 303316.0 | 1.883973 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 45.905612 | 10.0 | 301796.0 | 1.836224 | Y |
| 7 | IC 240-583544/9 | 37.5 | 69.307763 | 10.0 | 311584.0 | 1.848207 | Y |
| 8 | IC 240-583544/10 | 50.0 | 94.196064 | 10.0 | 305267.0 | 1.883921 | Y |
| 9 | IC 240-583544/11 | 62.5 | 116.491798 | 10.0 | 312482.0 | 1.863869 | Y |



## Calibration / 1,2,3-Trichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

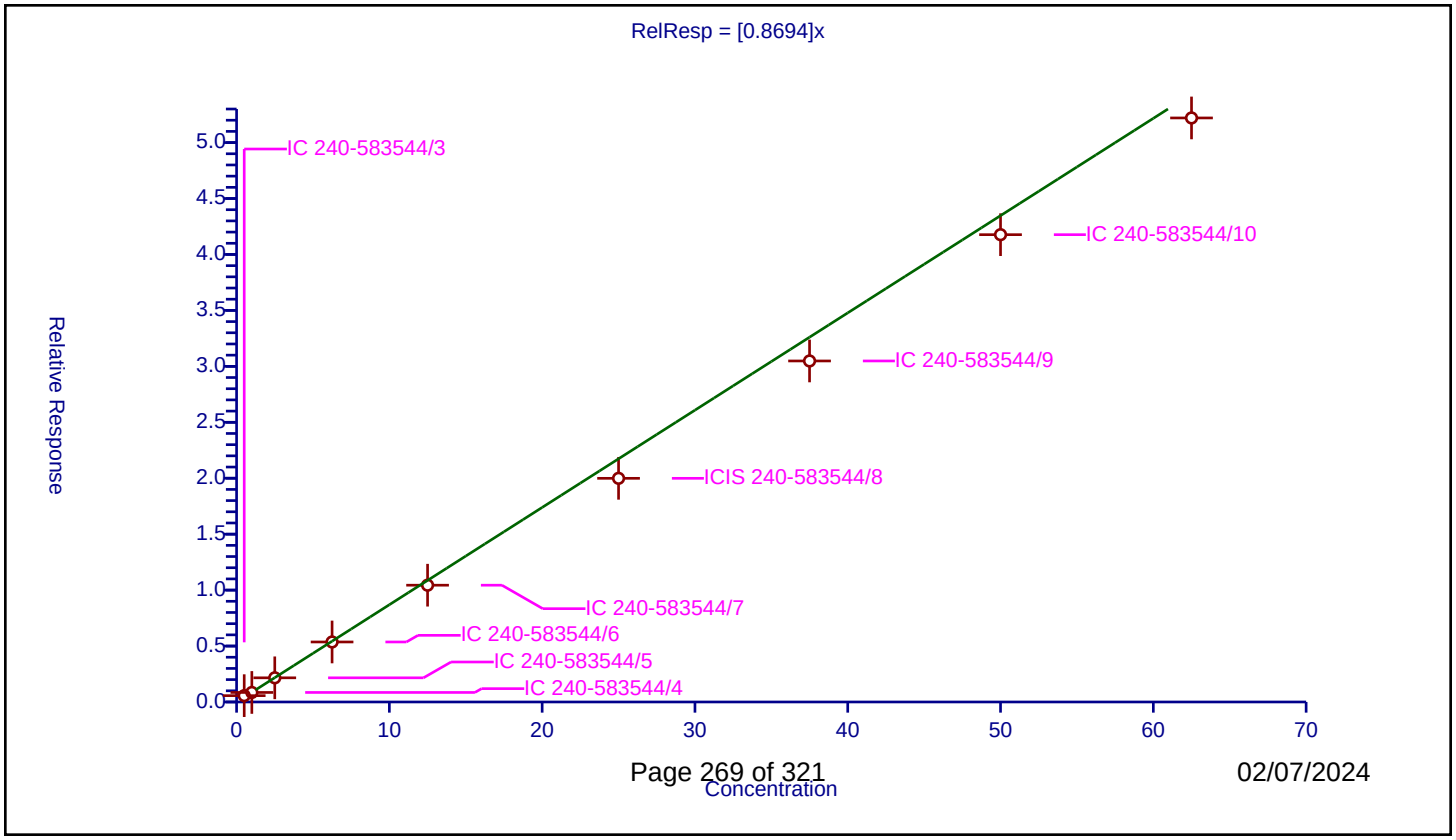
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8694 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 843000 |
| **Relative Standard Error:** | 11.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.980 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583544/3 | 0.5 | 0.566462 | 10.0 | 313260.0 | 1.132925 | Y |
| 2 | IC 240-583544/4 | 1.0 | 0.851307 | 10.0 | 298212.0 | 0.851307 | Y |
| 3 | IC 240-583544/5 | 2.5 | 2.160967 | 10.0 | 297825.0 | 0.864387 | Y |
| 4 | IC 240-583544/6 | 6.25 | 5.36311 | 10.0 | 292418.0 | 0.858098 | Y |
| 5 | IC 240-583544/7 | 12.5 | 10.439212 | 10.0 | 303316.0 | 0.835137 | Y |
| 6 | ICIS 240-583544/8 | 25.0 | 19.991551 | 10.0 | 301796.0 | 0.799662 | Y |
| 7 | IC 240-583544/9 | 37.5 | 30.481347 | 10.0 | 311584.0 | 0.812836 | Y |
| 8 | IC 240-583544/10 | 50.0 | 41.767961 | 10.0 | 305267.0 | 0.835359 | Y |
| 9 | IC 240-583544/11 | 62.5 | 52.200415 | 10.0 | 312482.0 | 0.835207 | Y |



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: ICV 240-583544/14 Calibration Date: 08/10/2023 19:51

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/10/2023 18:36

Lab File ID: 10-0611.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4288 | 0.3306 | 0.1000 | 0.00964 | 0.0125 | -22.9 | 30.0 |
| Chloromethane | Ave | 0.5932 | 0.5298 | 0.1000 | 0.0112 | 0.0125 | -10.7 | 30.0 |
| Vinyl chloride | Ave | 0.5164 | 0.4480 | 0.1000 | 0.0108 | 0.0125 | -13.2 | 30.0 |
| Butadiene | Ave | 0.5897 | 0.5007 | | 0.0106 | 0.0125 | -15.1 | 30.0 |
| Bromomethane | Ave | 0.2463 | 0.2319 | 0.0500 | 0.0118 | 0.0125 | -5.9 | 30.0 |
| Chloroethane | Ave | 0.2968 | 0.2651 | 0.0500 | 0.0112 | 0.0125 | -10.7 | 30.0 |
| Trichlorofluoromethane | Ave | 0.4905 | 0.4435 | 0.1000 | 0.0113 | 0.0125 | -9.6 | 30.0 |
| Dichlorofluoromethane | Ave | 0.6004 | 0.6147 | | 0.0128 | 0.0125 | 2.4 | 30.0 |
| Ethyl ether | Ave | 0.2880 | 0.2885 | | 0.0250 | 0.0250 | 0.1 | 30.0 |
| Acrolein | Ave | 0.0147 | 0.0212 | | 0.180 | 0.125 | 44.1* | 30.0 |
| 1,1-Dichloroethene | Ave | 0.2500 | 0.2655 | 0.1000 | 0.0265 | 0.0250 | 6.2 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2086 | 0.2121 | 0.0500 | 0.0254 | 0.0250 | 1.7 | 30.0 |
| Acetone | Lin1 | | 0.1050 | 0.0100 | 0.0546 | 0.0500 | 9.3 | 50.0 |
| Iodomethane | Ave | 0.4525 | 0.4837 | | 0.0267 | 0.0250 | 6.9 | 30.0 |
| Carbon disulfide | Ave | 0.7608 | 0.9028 | 0.1000 | 0.0297 | 0.0250 | 18.7 | 30.0 |
| Methyl acetate | Ave | 0.2654 | 0.2450 | 0.0500 | 0.0462 | 0.0500 | -7.7 | 50.0 |
| 3-Chloro-1-propene | Ave | 0.2028 | 0.2067 | | 0.0255 | 0.0250 | 1.9 | 30.0 |
| Methylene Chloride | Lin1 | | 0.3241 | 0.1000 | 0.0267 | 0.0250 | 6.7 | 50.0 |
| 2-Methyl-2-propanol | Ave | 0.0329 | 0.0326 | | 0.248 | 0.250 | -0.8 | 30.0 |
| Acrylonitrile | Ave | 0.1357 | 0.1317 | | 0.242 | 0.250 | -3.0 | 30.0 |
| Methyl tert-butyl ether | Ave | 0.8851 | 0.8816 | 0.1000 | 0.0249 | 0.0250 | -0.4 | 30.0 |
| trans-1,2-Dichloroethene | Ave | 0.3087 | 0.3060 | 0.1000 | 0.0248 | 0.0250 | -0.9 | 30.0 |
| Hexane | Ave | 0.0647 | 0.0646 | | 0.0250 | 0.0250 | -0.1 | 30.0 |
| Vinyl acetate | Ave | 0.5500 | 0.5555 | | 0.0252 | 0.0250 | 1.0 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.6532 | 0.6576 | 0.2000 | 0.0252 | 0.0250 | 0.7 | 30.0 |
| 2-Butanone (MEK) | Ave | 0.1522 | 0.1399 | 0.0100 | 0.0459 | 0.0500 | -8.1 | 50.0 |
| cis-1,2-Dichloroethene | Ave | 0.3269 | 0.3376 | 0.1000 | 0.0258 | 0.0250 | 3.3 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.0799 | 0.0782 | | 0.0245 | 0.0250 | -2.1 | 30.0 |
| Chlorobromomethane | Ave | 0.1559 | 0.1457 | | 0.0234 | 0.0250 | -6.6 | 30.0 |
| Tetrahydrofuran | Ave | 0.0950 | 0.0907 | | 0.0477 | 0.0500 | -4.6 | 30.0 |
| Chloroform | Ave | 0.5792 | 0.5722 | 0.2000 | 0.0247 | 0.0250 | -1.2 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.5004 | 0.4989 | 0.1000 | 0.0249 | 0.0250 | -0.3 | 30.0 |
| Cyclohexane | Ave | 0.6378 | 0.6436 | 0.1000 | 0.0252 | 0.0250 | 0.9 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.4326 | 0.4247 | | 0.0245 | 0.0250 | -1.8 | 30.0 |
| Carbon tetrachloride | Ave | 0.4277 | 0.4281 | 0.1000 | 0.0250 | 0.0250 | 0.1 | 30.0 |
| Isobutyl alcohol | Ave | 0.0141 | 0.0133 | | 0.590 | 0.625 | -5.7 | 30.0 |
| Benzene | Ave | 1.199 | 1.217 | 0.5000 | 0.0254 | 0.0250 | 1.5 | 30.0 |
| 1,2-Dichloroethane | Ave | 0.5514 | 0.5248 | 0.1000 | 0.0238 | 0.0250 | -4.8 | 30.0 |
| n-Heptane | Ave | 0.0616 | 0.0612 | | 0.0248 | 0.0250 | -0.6 | 30.0 |
| Trichloroethene | Ave | 0.3070 | 0.3122 | 0.1500 | 0.0254 | 0.0250 | 1.7 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: ICV 240-583544/14 Calibration Date: 08/10/2023 19:51

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/10/2023 18:36

Lab File ID: 10-0611.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methylcyclohexane | Ave | 0.4535 | 0.4389 | 0.1000 | 0.0242 | 0.0250 | -3.2 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.3621 | 0.3610 | 0.1000 | 0.0249 | 0.0250 | -0.3 | 30.0 |
| 1,4-Dioxane | Ave | 0.0027 | 0.0026 | | 0.472 | 0.500 | -5.5 | 50.0 |
| Dibromomethane | Ave | 0.1956 | 0.1916 | | 0.0245 | 0.0250 | -2.1 | 30.0 |
| Dichlorobromomethane | Ave | 0.4607 | 0.4423 | 0.1500 | 0.0240 | 0.0250 | -4.0 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.2213 | 0.2197 | | 0.0248 | 0.0250 | -0.7 | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.5354 | 0.4939 | 0.1500 | 0.0231 | 0.0250 | -7.8 | 50.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3387 | 0.3273 | 0.0500 | 0.0483 | 0.0500 | -3.4 | 50.0 |
| Toluene | Ave | 1.639 | 1.577 | 0.4000 | 0.0240 | 0.0250 | -3.8 | 30.0 |
| trans-1,3-Dichloropropene | Ave | 0.6318 | 0.6055 | 0.1000 | 0.0240 | 0.0250 | -4.2 | 30.0 |
| Ethyl methacrylate | Ave | 0.4966 | 0.4741 | | 0.0239 | 0.0250 | -4.5 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.3213 | 0.3135 | 0.1000 | 0.0244 | 0.0250 | -2.4 | 30.0 |
| Tetrachloroethene | Ave | 0.3074 | 0.3045 | 0.1500 | 0.0248 | 0.0250 | -0.9 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.5938 | 0.5823 | | 0.0245 | 0.0250 | -1.9 | 30.0 |
| 2-Hexanone | Ave | 0.2989 | 0.2937 | 0.0500 | 0.0491 | 0.0500 | -1.7 | 50.0 |
| Chlorodibromomethane | Ave | 0.3866 | 0.3746 | | 0.0242 | 0.0250 | -3.1 | 30.0 |
| Ethylene Dibromide | Ave | 0.3366 | 0.3292 | | 0.0244 | 0.0250 | -2.2 | 30.0 |
| Chlorobenzene | Ave | 1.045 | 1.061 | 0.3000 | 0.0254 | 0.0250 | 1.5 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3921 | 0.3945 | | 0.0252 | 0.0250 | 0.6 | 30.0 |
| Ethylbenzene | Ave | 0.5815 | 0.5799 | | 0.0249 | 0.0250 | -0.3 | 30.0 |
| m-Xylene & p-Xylene | Ave | 0.7291 | 0.7218 | | 0.0248 | 0.0250 | -1.0 | 30.0 |
| o-Xylene | Ave | 0.7291 | 0.7099 | | 0.0243 | 0.0250 | -2.6 | 30.0 |
| Styrene | Ave | 1.239 | 1.236 | 0.3000 | 0.0249 | 0.0250 | -0.2 | 30.0 |
| Bromoform | Ave | 0.2736 | 0.2684 | 0.1000 | 0.0245 | 0.0250 | -1.9 | 30.0 |
| Isopropylbenzene | Ave | 1.831 | 1.851 | 0.1000 | 0.0253 | 0.0250 | 1.1 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.7288 | 0.6989 | 0.3000 | 0.0240 | 0.0250 | -4.1 | 30.0 |
| Bromobenzene | Ave | 0.8230 | 0.8294 | | 0.0252 | 0.0250 | 0.8 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2938 | 0.2825 | | 0.0240 | 0.0250 | -3.8 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.2208 | 0.2189 | | 0.0248 | 0.0250 | -0.9 | 30.0 |
| N-Propylbenzene | Ave | 0.8277 | 0.8386 | | 0.0253 | 0.0250 | 1.3 | 30.0 |
| 2-Chlorotoluene | Ave | 0.7438 | 0.7411 | | 0.0249 | 0.0250 | -0.4 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.667 | 2.706 | | 0.0254 | 0.0250 | 1.4 | 30.0 |
| 4-Chlorotoluene | Ave | 0.7830 | 0.7870 | | 0.0251 | 0.0250 | 0.5 | 30.0 |
| tert-Butylbenzene | Ave | 2.139 | 2.181 | | 0.0255 | 0.0250 | 2.0 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.795 | 2.769 | | 0.0248 | 0.0250 | -0.9 | 30.0 |
| sec-Butylbenzene | Ave | 3.146 | 3.161 | | 0.0251 | 0.0250 | 0.5 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 1.511 | 1.485 | 0.6000 | 0.0246 | 0.0250 | -1.7 | 30.0 |
| 4-Isopropyltoluene | Ave | 2.675 | 2.674 | | 0.0250 | 0.0250 | -0.0 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 1.544 | 1.517 | 0.5000 | 0.0246 | 0.0250 | -1.7 | 30.0 |
| n-Butylbenzene | Ave | 2.501 | 2.483 | | 0.0248 | 0.0250 | -0.7 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 1.437 | 1.423 | 0.4000 | 0.0247 | 0.0250 | -1.0 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: ICV 240-583544/14 Calibration Date: 08/10/2023 19:51

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/10/2023 18:36

Lab File ID: 10-0611.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1506 | 0.1422 | 0.0500 | 0.0236 | 0.0250 | -5.6 | 50.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.033 | 1.038 | 0.2000 | 0.0251 | 0.0250 | 0.4 | 50.0 |
| Hexachlorobutadiene | Ave | 0.4312 | 0.4575 | | 0.0265 | 0.0250 | 6.1 | 50.0 |
| Naphthalene | Ave | 1.967 | 1.971 | | 0.0251 | 0.0250 | 0.2 | 50.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.8694 | 0.8723 | | 0.0251 | 0.0250 | 0.3 | 30.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2734 | 0.2697 | | 0.00921 | 0.00934 | -1.4 | 30.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3887 | 0.3863 | | 0.00928 | 0.00934 | -0.6 | 30.0 |
| Toluene-d8 (Surr) | Ave | 1.325 | 1.300 | | 0.00917 | 0.00934 | -1.9 | 30.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.5818 | 0.5822 | | 0.00935 | 0.00934 | 0.0 | 30.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0611.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 10-Aug-2023 19:51:30 ALS Bottle#: 12 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-014
Operator ID: 434006 Instrument ID: A3UX10
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2023 08:55:22 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: HE9L Date: 14-Aug-2023 08:55:33

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.714 | 5.717 | -0.003 | 97 | 649032 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.447 | 8.438 | 0.009 | 90 | 517880 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.719 | 10.722 | -0.003 | 95 | 308780 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.134 | 5.137 | -0.003 | 93 | 163486 | 9.34 | 9.21 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.433 | -0.003 | 98 | 234196 | 9.34 | 9.28 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.098 | 7.101 | -0.003 | 94 | 628945 | 9.34 | 9.17 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.571 | 9.574 | -0.003 | 86 | 281631 | 9.34 | 9.35 | |
| 9 Dichlorodifluoromethane | 85 | 1.631 | 1.634 | -0.003 | 99 | 268216 | 12.5 | 9.64 | |
| 10 Chloromethane | 50 | 1.844 | 1.836 | 0.008 | 100 | 429822 | 12.5 | 11.2 | |
| 11 Vinyl chloride | 62 | 1.951 | 1.954 | -0.003 | 98 | 363425 | 12.5 | 10.8 | |
| 12 Butadiene | 54 | 1.963 | 1.966 | -0.003 | 89 | 406248 | 12.5 | 10.6 | |
| 13 Bromomethane | 94 | 2.294 | 2.285 | 0.009 | 92 | 188154 | 12.5 | 11.8 | |
| 14 Chloroethane | 64 | 2.365 | 2.368 | -0.003 | 98 | 215050 | 12.5 | 11.2 | |
| 15 Dichlorofluoromethane | 67 | 2.602 | 2.605 | -0.003 | 98 | 498702 | 12.5 | 12.8 | |
| 16 Trichlorofluoromethane | 101 | 2.590 | 2.605 | -0.015 | 99 | 359773 | 12.5 | 11.3 | |
| 17 Ethyl ether | 59 | 2.874 | 2.877 | -0.003 | 98 | 468058 | 25.0 | 25.0 | |
| 18 Acrolein | 56 | 3.004 | 3.007 | -0.003 | 99 | 172164 | 125.0 | 180.1 | |
| 19 1,1-Dichloroethene | 96 | 3.099 | 3.102 | -0.004 | 94 | 430798 | 25.0 | 26.5 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.134 | 3.137 | -0.003 | 96 | 344164 | 25.0 | 25.4 | |
| 21 Acetone | 43 | 3.146 | 3.149 | -0.003 | 100 | 340721 | 50.0 | 54.6 | |
| 22 Iodomethane | 142 | 3.240 | 3.244 | -0.004 | 99 | 784898 | 25.0 | 26.7 | |
| 24 Carbon disulfide | 76 | 3.311 | 3.315 | -0.004 | 99 | 1464839 | 25.0 | 29.7 | |
| 27 Methyl acetate | 43 | 3.430 | 3.433 | -0.003 | 99 | 795116 | 50.0 | 46.2 | |
| 26 3-Chloro-1-propene | 76 | 3.442 | 3.445 | -0.003 | 87 | 335454 | 25.0 | 25.5 | |
| 28 Methylene Chloride | 84 | 3.572 | 3.563 | 0.009 | 96 | 525836 | 25.0 | 26.7 | |
| 29 2-Methyl-2-propanol | 59 | 3.666 | 3.670 | -0.004 | 97 | 529665 | 250.0 | 248.1 | |
| 31 Acrylonitrile | 53 | 3.785 | 3.788 | -0.003 | 97 | 2136273 | 250.0 | 242.5 | |
| 32 Methyl tert-butyl ether | 73 | 3.808 | 3.812 | -0.004 | 98 | 1430426 | 25.0 | 24.9 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.820 | 3.812 | 0.008 | 92 | 496475 | 25.0 | 24.8 | |
| 33 Hexane | 86 | 4.057 | 4.060 | -0.003 | 93 | 104888 | 25.0 | 25.0 | |
| 35 Vinyl acetate | 43 | 4.199 | 4.202 | -0.003 | 97 | 901328 | 25.0 | 25.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.211 | 4.214 | -0.003 | 97 | 1066958 | 25.0 | 25.2 | |
| 41 2-Butanone (MEK) | 43 | 4.696 | 4.699 | -0.003 | 99 | 453903 | 50.0 | 45.9 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.708 | 4.711 | -0.003 | 89 | 547725 | 25.0 | 25.8 | |
| 39 2,2-Dichloropropane | 97 | 4.720 | 4.723 | -0.003 | 91 | 126942 | 25.0 | 24.5 | |
| 45 Chlorobromomethane | 128 | 4.921 | 4.912 | 0.009 | 93 | 236408 | 25.0 | 23.4 | |
| 46 Tetrahydrofuran | 42 | 4.933 | 4.936 | -0.003 | 94 | 294242 | 50.0 | 47.7 | |
| 47 Chloroform | 83 | 5.004 | 5.007 | -0.003 | 98 | 928442 | 25.0 | 24.7 | |
| 48 1,1,1-Trichloroethane | 97 | 5.146 | 5.149 | -0.003 | 96 | 809546 | 25.0 | 24.9 | |
| 49 Cyclohexane | 56 | 5.217 | 5.208 | 0.009 | 93 | 1044265 | 25.0 | 25.2 | |
| 50 1,1-Dichloropropene | 75 | 5.288 | 5.279 | 0.009 | 88 | 689081 | 25.0 | 24.5 | |
| 51 Carbon tetrachloride | 117 | 5.288 | 5.279 | 0.009 | 88 | 694685 | 25.0 | 25.0 | |
| 52 Isobutyl alcohol | 41 | 5.359 | 5.350 | 0.009 | 94 | 430840 | 625.0 | 589.7 | |
| 53 Benzene | 78 | 5.453 | 5.456 | -0.003 | 98 | 1974369 | 25.0 | 25.4 | |
| 54 1,2-Dichloroethane | 62 | 5.501 | 5.504 | -0.003 | 97 | 851493 | 25.0 | 23.8 | |
| 56 n-Heptane | 100 | 5.690 | 5.693 | -0.003 | 96 | 99338 | 25.0 | 24.8 | |
| 58 Trichloroethene | 130 | 6.021 | 6.024 | -0.003 | 95 | 506637 | 25.0 | 25.4 | |
| 60 Methylcyclohexane | 83 | 6.234 | 6.226 | 0.008 | 98 | 712161 | 25.0 | 24.2 | |
| 61 1,2-Dichloropropane | 63 | 6.246 | 6.249 | -0.003 | 92 | 585706 | 25.0 | 24.9 | |
| 64 1,4-Dioxane | 88 | 6.305 | 6.308 | -0.003 | 94 | 83217 | 500.0 | 472.4 | |
| 63 Dibromomethane | 93 | 6.329 | 6.332 | -0.003 | 95 | 310813 | 25.0 | 24.5 | |
| 65 Dichlorobromomethane | 83 | 6.471 | 6.474 | -0.003 | 98 | 717671 | 25.0 | 24.0 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.708 | 6.711 | -0.003 | 93 | 356491 | 25.0 | 24.8 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.861 | 6.853 | 0.008 | 90 | 801386 | 25.0 | 23.1 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.980 | 6.983 | -0.003 | 98 | 1062111 | 50.0 | 48.3 | |
| 70 Toluene | 91 | 7.169 | 7.160 | 0.009 | 97 | 2041628 | 25.0 | 24.0 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.370 | 7.361 | 0.009 | 98 | 783973 | 25.0 | 24.0 | |
| 72 Ethyl methacrylate | 69 | 7.406 | 7.397 | 0.009 | 94 | 613787 | 25.0 | 23.9 | |
| 73 1,1,2-Trichloroethane | 97 | 7.548 | 7.551 | -0.003 | 96 | 405825 | 25.0 | 24.4 | |
| 74 Tetrachloroethene | 164 | 7.630 | 7.634 | -0.004 | 93 | 394256 | 25.0 | 24.8 | |
| 75 1,3-Dichloropropane | 76 | 7.701 | 7.693 | 0.008 | 96 | 753917 | 25.0 | 24.5 | |
| 76 2-Hexanone | 43 | 7.737 | 7.740 | -0.003 | 98 | 760494 | 50.0 | 49.1 | |
| 78 Chlorodibromomethane | 129 | 7.903 | 7.894 | 0.009 | 90 | 484966 | 25.0 | 24.2 | |
| 80 Ethylene Dibromide | 107 | 8.021 | 8.012 | 0.009 | 98 | 426246 | 25.0 | 24.4 | |
| 82 Chlorobenzene | 112 | 8.471 | 8.474 | -0.003 | 90 | 1373294 | 25.0 | 25.4 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.553 | 8.545 | 0.008 | 93 | 510797 | 25.0 | 25.2 | |
| 84 Ethylbenzene | 106 | 8.553 | 8.557 | -0.004 | 99 | 750741 | 25.0 | 24.9 | |
| 85 m-Xylene & p-Xylene | 106 | 8.684 | 8.675 | 0.009 | 99 | 934547 | 25.0 | 24.8 | |
| 86 o-Xylene | 106 | 9.050 | 9.054 | -0.004 | 99 | 919089 | 25.0 | 24.3 | |
| 87 Styrene | 104 | 9.062 | 9.065 | -0.003 | 94 | 1599752 | 25.0 | 24.9 | |
| 88 Bromoform | 173 | 9.252 | 9.255 | -0.003 | 96 | 347549 | 25.0 | 24.5 | |
| 89 Isopropylbenzene | 105 | 9.405 | 9.397 | 0.008 | 97 | 2395847 | 25.0 | 25.3 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.701 | 9.693 | 0.009 | 96 | 539503 | 25.0 | 24.0 | |
| 93 Bromobenzene | 156 | 9.725 | 9.716 | 0.009 | 95 | 640279 | 25.0 | 25.2 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.737 | 9.740 | -0.003 | 84 | 218099 | 25.0 | 24.0 | |
| 94 1,2,3-Trichloropropane | 110 | 9.760 | 9.764 | -0.004 | 89 | 168982 | 25.0 | 24.8 | |
| 96 N-Propylbenzene | 120 | 9.808 | 9.811 | -0.003 | 99 | 647326 | 25.0 | 25.3 | |
| 97 2-Chlorotoluene | 126 | 9.902 | 9.906 | -0.004 | 95 | 572124 | 25.0 | 24.9 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.985 | 9.988 | -0.003 | 95 | 2088578 | 25.0 | 25.4 | |
| 99 4-Chlorotoluene | 126 | 10.021 | 10.024 | -0.003 | 99 | 607536 | 25.0 | 25.1 | |
| 100 tert-Butylbenzene | 119 | 10.293 | 10.296 | -0.003 | 93 | 1683919 | 25.0 | 25.5 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.352 | 10.355 | -0.003 | 99 | 2137455 | 25.0 | 24.8 | |
| 103 sec-Butylbenzene | 105 | 10.518 | 10.521 | -0.003 | 95 | 2440429 | 25.0 | 25.1 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.636 | 10.639 | -0.003 | 96 | 1146537 | 25.0 | 24.6 | |
| 105 4-Isopropyltoluene | 119 | 10.671 | 10.663 | 0.008 | 96 | 2064422 | 25.0 | 25.0 | |
| 106 1,4-Dichlorobenzene | 146 | 10.742 | 10.746 | -0.004 | 92 | 1171004 | 25.0 | 24.6 | |
| 109 n-Butylbenzene | 91 | 11.074 | 11.077 | -0.003 | 98 | 1916998 | 25.0 | 24.8 | |
| 110 1,2-Dichlorobenzene | 146 | 11.097 | 11.101 | -0.004 | 95 | 1098107 | 25.0 | 24.7 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.890 | 11.882 | 0.008 | 86 | 109783 | 25.0 | 23.6 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.707 | 12.710 | -0.003 | 94 | 801176 | 25.0 | 25.1 | |
| 114 Hexachlorobutadiene | 225 | 12.849 | 12.852 | -0.003 | 97 | 353136 | 25.0 | 26.5 | |
| 115 Naphthalene | 128 | 12.991 | 12.982 | 0.009 | 99 | 1521657 | 25.0 | 25.1 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.227 | 13.231 | -0.003 | 97 | 673404 | 25.0 | 25.1 | |
| S 156 Total BTEX | 1 | | | | 0 | | 125.0 | 123.4 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 97.5 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 49.1 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASGW_00520 | Amount Added: 10.00 | Units: uL | | |
| VMFASPW_00504 | Amount Added: 20.00 | Units: uL | | |
| VMFASAW_00475 | Amount Added: 20.00 | Units: uL | | |
| vm50ss_stk_00094 | Amount Added: 0.93 | Units: uL | Run Reagent | |
| vm50is_stk_A_00019 | Amount Added: 1.00 | Units: uL | Run Reagent | |
| vm40ml_vials_00024 | Amount Added: 0.00 | Units: | Run Reagent | |
| vmDist_H2o_00239 | Amount Added: 0.00 | Units: | Run Reagent | |

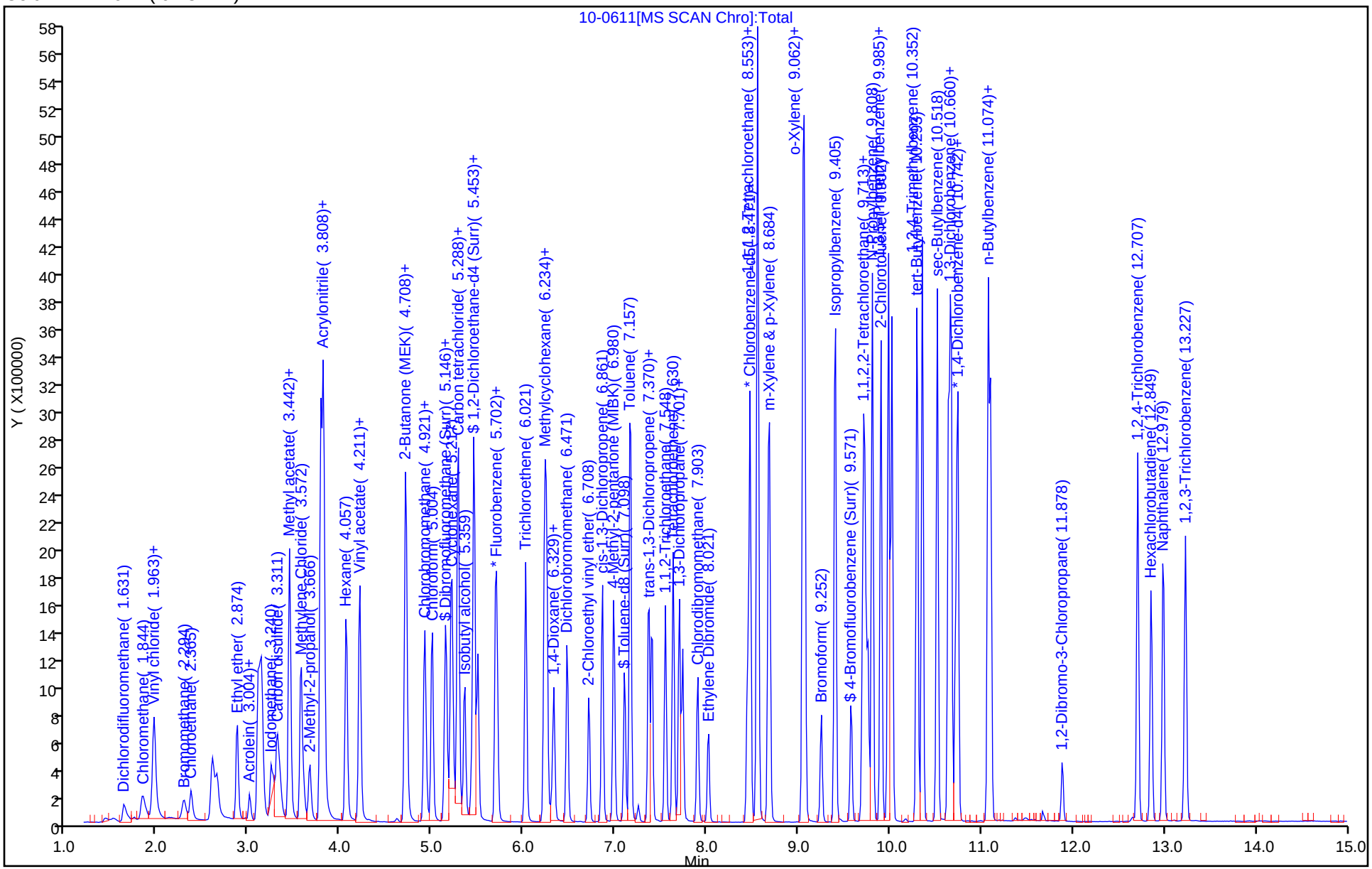
Report Date: 14-Aug-2023 08:55:33 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0611.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 19:51:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ICV | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 12 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: ICV 240-583544/28 Calibration Date: 08/11/2023 01:17

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/10/2023 18:36

Lab File ID: 10-0624.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dibromofluoromethane (Surr) | Ave | 0.2734 | 0.2704 | | 0.00924 | 0.00934 | -1.1 | 30.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3887 | 0.3802 | | 0.00914 | 0.00934 | -2.2 | 30.0 |
| Toluene-d8 (Surr) | Ave | 1.325 | 1.319 | | 0.00930 | 0.00934 | -0.4 | 30.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.5818 | 0.5857 | | 0.00940 | 0.00934 | 0.7 | 30.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0624.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 11-Aug-2023 01:17:30 ALS Bottle#: 26 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-028
Operator ID: 434006 Instrument ID: A3UX10
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2023 08:54:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: HE9L Date: 11-Aug-2023 08:52:42

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.716 | 5.717 | -0.001 | 98 | 653483 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.450 | 8.438 | 0.012 | 87 | 502907 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.721 | 10.722 | -0.001 | 97 | 296045 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.136 | 5.137 | -0.001 | 93 | 165009 | 9.34 | 9.24 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.432 | 5.433 | -0.001 | 96 | 232073 | 9.34 | 9.14 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.101 | 7.101 | 0.000 | 95 | 619731 | 9.34 | 9.30 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.574 | 9.574 | 0.000 | 86 | 275125 | 9.34 | 9.40 | |
| 25 Acetonitrile | 41 | 3.409 | 3.406 | 0.003 | 99 | 639475 | 250.0 | 232.8 | |
| 36 Isopropyl ether | 87 | 4.237 | 4.234 | 0.003 | 95 | 434770 | 25.0 | 24.6 | |
| 37 2-Chloro-1,3-butadiene | 53 | 4.273 | 4.270 | 0.003 | 93 | 1157584 | 25.0 | 26.0 | |
| 38 Tert-butyl ethyl ether | 59 | 4.545 | 4.554 | -0.009 | 99 | 2105409 | 25.0 | 25.4 | |
| 42 Ethyl acetate | 43 | 4.722 | 4.719 | 0.003 | 99 | 902326 | 50.0 | 45.7 | |
| 43 Propionitrile | 54 | 4.758 | 4.755 | 0.003 | 99 | 740616 | 250.0 | 232.6 | |
| 44 Methacrylonitrile | 41 | 4.888 | 4.885 | 0.003 | 95 | 3185055 | 250.0 | 235.6 | |
| 158 Isooctane | 57 | 5.551 | 5.547 | 0.003 | 96 | 1455139 | NC | NC | |
| 55 Tert-amyl methyl ether | 73 | 5.562 | 5.559 | 0.003 | 94 | 1493635 | 25.0 | 25.2 | |
| 57 n-Butanol | 56 | 5.917 | 5.914 | 0.003 | 88 | 350715 | 625.0 | 555.0 | |
| 59 Ethyl acrylate | 55 | 6.071 | 6.080 | -0.009 | 98 | 698227 | 25.0 | 23.6 | |
| 62 Methyl methacrylate | 41 | 6.284 | 6.281 | 0.003 | 92 | 967597 | 50.0 | 46.4 | |
| 66 2-Nitropropane | 41 | 6.663 | 6.672 | -0.009 | 99 | 284755 | 50.0 | 46.5 | |
| 77 n-Butyl acetate | 56 | 7.834 | 7.831 | 0.003 | 98 | 362175 | 25.0 | 23.0 | |
| 81 1-Chlorohexane | 91 | 8.438 | 8.435 | 0.003 | 89 | 654357 | 25.0 | 24.7 | |
| 91 Cyclohexanone | 55 | 9.503 | 9.500 | 0.003 | 96 | 178304 | 250.0 | 228.7 | |
| 101 Pentachloroethane | 167 | 10.331 | 10.328 | 0.003 | 95 | 68318 | 50.0 | 15.6 | |
| 107 1,2,3-Trimethylbenzene | 105 | 10.769 | 10.766 | 0.003 | 99 | 2149039 | 25.0 | 24.9 | |
| 108 Benzyl chloride | 126 | 10.852 | 10.849 | 0.003 | 100 | 149077 | 25.0 | 22.7 | |
| 112 1,3,5-Trichlorobenzene | 180 | 12.070 | 12.067 | 0.003 | 97 | 832962 | 25.0 | 25.2 | |
| 117 2-Methylnaphthalene | 142 | 14.378 | 14.387 | -0.009 | 98 | 1200236 | 50.0 | 50.3 | |
| 157 1-Methylnaphthalene | 142 | 14.638 | 14.647 | -0.009 | 94 | 851225 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASA9W_00416 | Amount Added: | 20.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

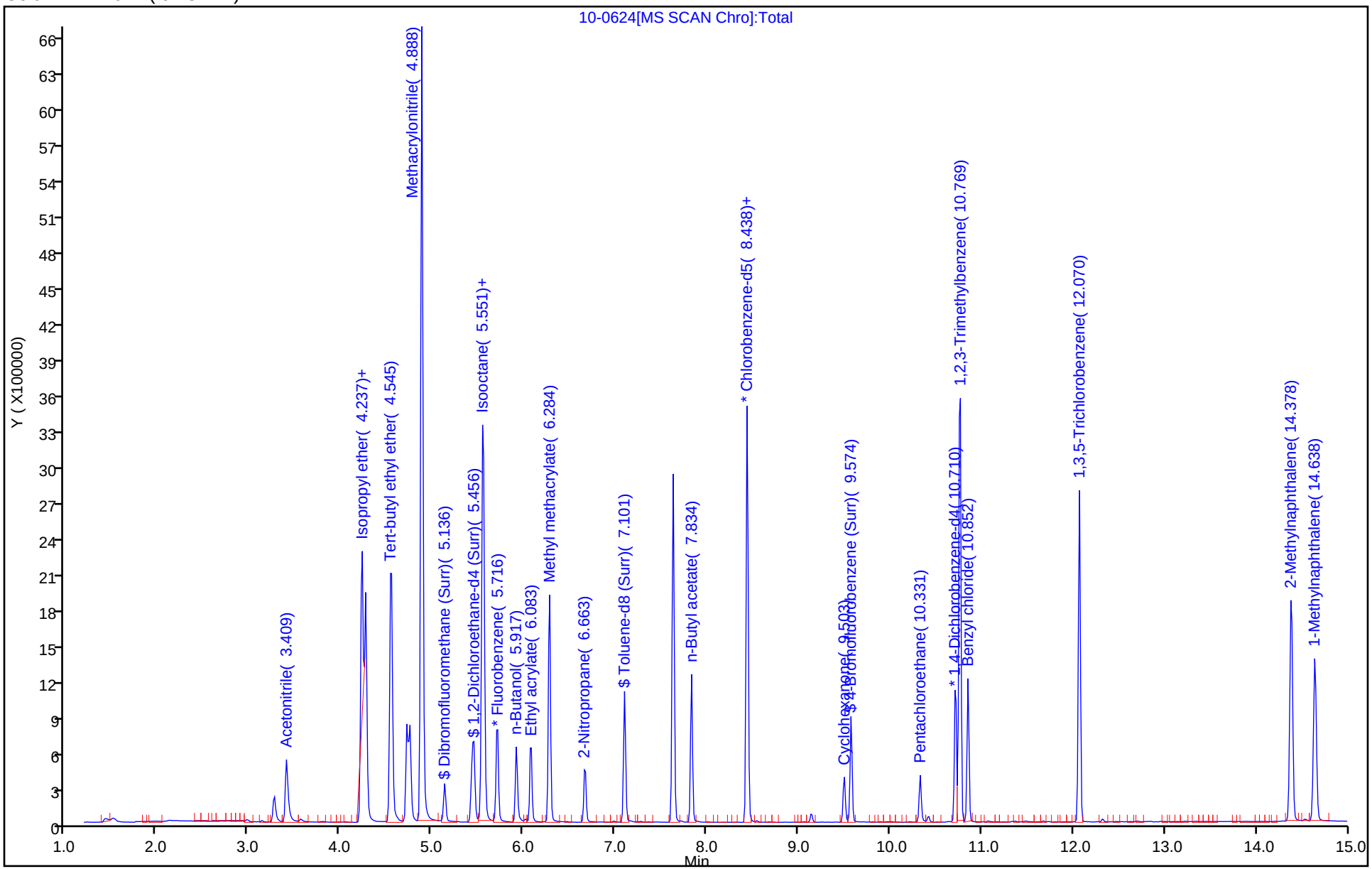
Report Date: 14-Aug-2023 08:54:40 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0624.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 11-Aug-2023 01:17:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ICV | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: ICV 240-583544/28 Calibration Date: 08/11/2023 01:17

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 21:07

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/11/2023 00:27

Lab File ID: 10-0624.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Acetonitrile | Ave | 0.0420 | 0.0391 | | 0.233 | 0.250 | -6.9 | 30.0 |
| Isopropyl ether | Ave | 0.2710 | 0.2661 | | 0.0246 | 0.0250 | -1.8 | 30.0 |
| 2-Chloro-1,3-butadiene | Ave | 0.6821 | 0.7086 | | 0.0260 | 0.0250 | 3.9 | 30.0 |
| Tert-butyl ethyl ether | Ave | 1.267 | 1.289 | | 0.0254 | 0.0250 | 1.7 | 30.0 |
| Ethyl acetate | Ave | 0.3020 | 0.2762 | | 0.0457 | 0.0500 | -8.6 | 30.0 |
| Propionitrile | Ave | 0.0487 | 0.0453 | | 0.233 | 0.250 | -7.0 | 30.0 |
| Methacrylonitrile | Ave | 0.2069 | 0.1950 | | 0.236 | 0.250 | -5.8 | 30.0 |
| Tert-amyl methyl ether | Ave | 0.9069 | 0.9143 | | 0.0252 | 0.0250 | 0.8 | 30.0 |
| n-Butanol | Ave | 0.0126 | 0.0112 | | 0.555 | 0.625 | -11.2 | 30.0 |
| Ethyl acrylate | Ave | 0.4521 | 0.4274 | | 0.0236 | 0.0250 | -5.5 | 30.0 |
| Methyl methacrylate | Ave | 0.3189 | 0.2961 | | 0.0464 | 0.0500 | -7.1 | 30.0 |
| 2-Nitropropane | Ave | 0.0937 | 0.0871 | | 0.0465 | 0.0500 | -6.9 | 30.0 |
| n-Butyl acetate | Ave | 0.3126 | 0.2881 | | 0.0230 | 0.0250 | -7.8 | 30.0 |
| 1-Chlorohexane | Ave | 0.5267 | 0.5205 | | 0.0247 | 0.0250 | -1.2 | 30.0 |
| Cyclohexanone | Ave | 0.0263 | 0.0241 | | 0.229 | 0.250 | -8.5 | 30.0 |
| Pentachloroethane | Lin1 | | 0.0272 | | 0.0156 | 0.0500 | -68.7* | 30.0 |
| 1,2,3-Trimethylbenzene | Ave | 2.919 | 2.904 | | 0.0249 | 0.0250 | -0.5 | 30.0 |
| Benzyl chloride | Ave | 0.2219 | 0.2014 | | 0.0227 | 0.0250 | -9.2 | 30.0 |
| 1,3,5-Trichlorobenzene | Ave | 1.116 | 1.125 | | 0.0252 | 0.0250 | 0.9 | 30.0 |
| 2-Methylnaphthalene | Ave | 0.8057 | 0.8108 | | 0.0503 | 0.0500 | 0.6 | 30.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0624.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 11-Aug-2023 01:17:30 ALS Bottle#: 26 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-028
Operator ID: 434006 Instrument ID: A3UX10
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2023 08:54:29 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: HE9L Date: 11-Aug-2023 08:52:42

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.716 | 5.717 | -0.001 | 98 | 653483 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.450 | 8.438 | 0.012 | 87 | 502907 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.721 | 10.722 | -0.001 | 97 | 296045 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.136 | 5.137 | -0.001 | 93 | 165009 | 9.34 | 9.24 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.432 | 5.433 | -0.001 | 96 | 232073 | 9.34 | 9.14 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.101 | 7.101 | 0.000 | 95 | 619731 | 9.34 | 9.30 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.574 | 9.574 | 0.000 | 86 | 275125 | 9.34 | 9.40 | |
| 25 Acetonitrile | 41 | 3.409 | 3.406 | 0.003 | 99 | 639475 | 250.0 | 232.8 | |
| 36 Isopropyl ether | 87 | 4.237 | 4.234 | 0.003 | 95 | 434770 | 25.0 | 24.6 | |
| 37 2-Chloro-1,3-butadiene | 53 | 4.273 | 4.270 | 0.003 | 93 | 1157584 | 25.0 | 26.0 | |
| 38 Tert-butyl ethyl ether | 59 | 4.545 | 4.554 | -0.009 | 99 | 2105409 | 25.0 | 25.4 | |
| 42 Ethyl acetate | 43 | 4.722 | 4.719 | 0.003 | 99 | 902326 | 50.0 | 45.7 | |
| 43 Propionitrile | 54 | 4.758 | 4.755 | 0.003 | 99 | 740616 | 250.0 | 232.6 | |
| 44 Methacrylonitrile | 41 | 4.888 | 4.885 | 0.003 | 95 | 3185055 | 250.0 | 235.6 | |
| 158 Isooctane | 57 | 5.551 | 5.547 | 0.003 | 96 | 1455139 | NC | NC | |
| 55 Tert-amyl methyl ether | 73 | 5.562 | 5.559 | 0.003 | 94 | 1493635 | 25.0 | 25.2 | |
| 57 n-Butanol | 56 | 5.917 | 5.914 | 0.003 | 88 | 350715 | 625.0 | 555.0 | |
| 59 Ethyl acrylate | 55 | 6.071 | 6.080 | -0.009 | 98 | 698227 | 25.0 | 23.6 | |
| 62 Methyl methacrylate | 41 | 6.284 | 6.281 | 0.003 | 92 | 967597 | 50.0 | 46.4 | |
| 66 2-Nitropropane | 41 | 6.663 | 6.672 | -0.009 | 99 | 284755 | 50.0 | 46.5 | |
| 77 n-Butyl acetate | 56 | 7.834 | 7.831 | 0.003 | 98 | 362175 | 25.0 | 23.0 | |
| 81 1-Chlorohexane | 91 | 8.438 | 8.435 | 0.003 | 89 | 654357 | 25.0 | 24.7 | |
| 91 Cyclohexanone | 55 | 9.503 | 9.500 | 0.003 | 96 | 178304 | 250.0 | 228.7 | |
| 101 Pentachloroethane | 167 | 10.331 | 10.328 | 0.003 | 95 | 68318 | 50.0 | 15.6 | |
| 107 1,2,3-Trimethylbenzene | 105 | 10.769 | 10.766 | 0.003 | 99 | 2149039 | 25.0 | 24.9 | |
| 108 Benzyl chloride | 126 | 10.852 | 10.849 | 0.003 | 100 | 149077 | 25.0 | 22.7 | |
| 112 1,3,5-Trichlorobenzene | 180 | 12.070 | 12.067 | 0.003 | 97 | 832962 | 25.0 | 25.2 | |
| 117 2-Methylnaphthalene | 142 | 14.378 | 14.387 | -0.009 | 98 | 1200236 | 50.0 | 50.3 | |
| 157 1-Methylnaphthalene | 142 | 14.638 | 14.647 | -0.009 | 94 | 851225 | NC | NC | |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASA9W_00416 | Amount Added: | 20.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm50is_stk_A_00019 | Amount Added: | 1.00 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

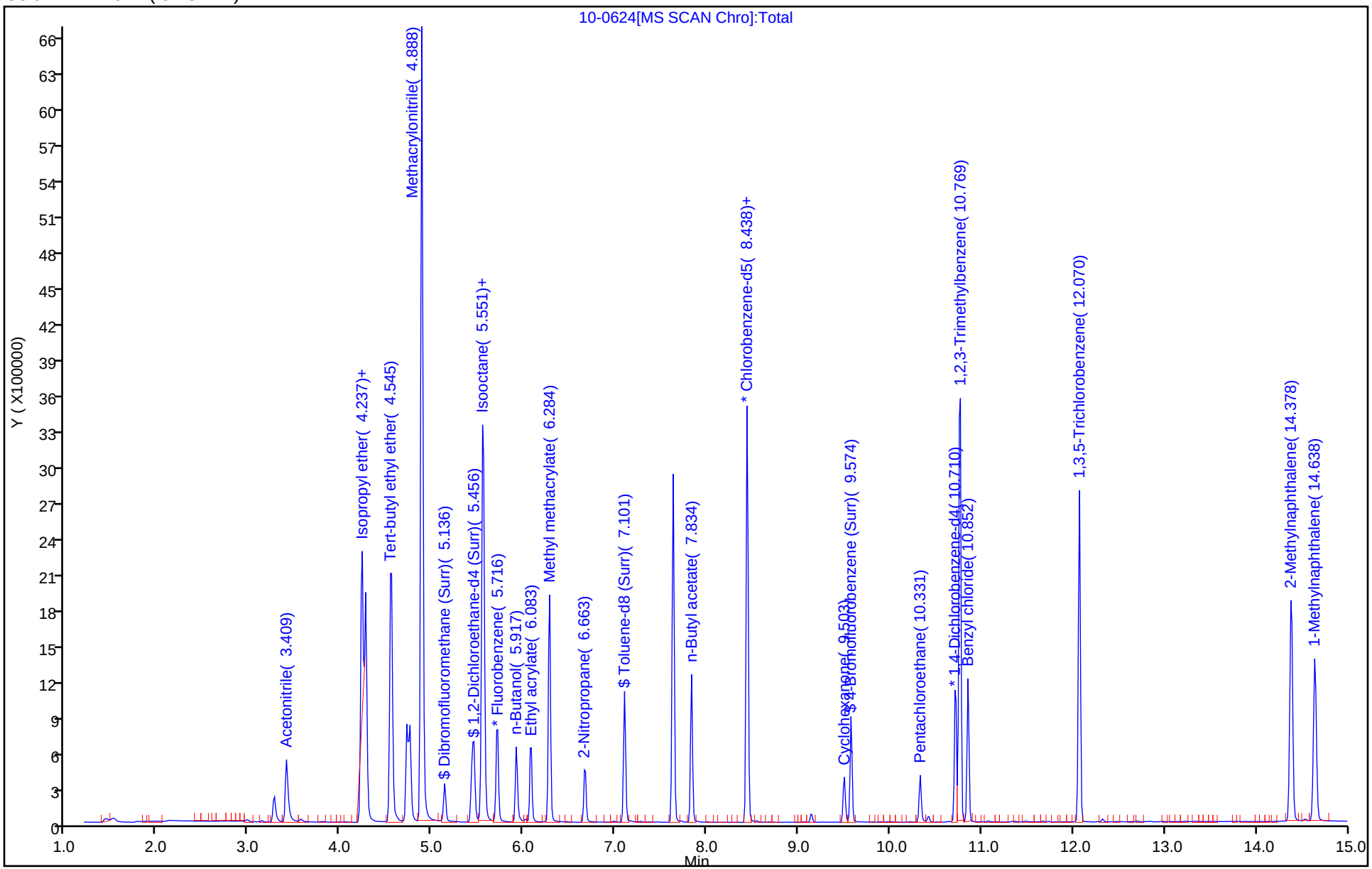
Report Date: 14-Aug-2023 08:54:40 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0624.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 11-Aug-2023 01:17:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | ICV | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 26 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: CCVIS 240-587660/3 Calibration Date: 09/19/2023 10:52

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/10/2023 18:36

Lab File ID: 101505.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.4288 | 0.3154 | 0.1000 | 0.0184 | 0.0250 | -26.4* | 20.0 |
| Chloromethane | Ave | 0.5932 | 0.5605 | 0.1000 | 0.0236 | 0.0250 | -5.5 | 20.0 |
| Vinyl chloride | Ave | 0.5164 | 0.3892 | 0.1000 | 0.0188 | 0.0250 | -24.6* | 20.0 |
| Butadiene | Ave | 0.5897 | 0.4446 | | 0.0188 | 0.0250 | -24.6* | 20.0 |
| Bromomethane | Ave | 0.2463 | 0.2134 | 0.0500 | 0.0217 | 0.0250 | -13.4 | 20.0 |
| Chloroethane | Ave | 0.2968 | 0.2575 | 0.0500 | 0.0217 | 0.0250 | -13.3 | 20.0 |
| Dichlorofluoromethane | Ave | 0.6004 | 0.5991 | | 0.0249 | 0.0250 | -0.2 | 20.0 |
| Trichlorofluoromethane | Ave | 0.4905 | 0.3913 | 0.1000 | 0.0199 | 0.0250 | -20.2* | 20.0 |
| Ethyl ether | Ave | 0.2880 | 0.2952 | | 0.0256 | 0.0250 | 2.5 | 20.0 |
| Acrolein | Ave | 0.0147 | 0.0234 | | 0.198 | 0.125 | 58.7* | 20.0 |
| 1,1-Dichloroethene | Ave | 0.2500 | 0.2521 | 0.1000 | 0.0252 | 0.0250 | 0.8 | 20.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Ave | 0.2086 | 0.1405 | 0.0500 | 0.0168 | 0.0250 | -32.6* | 20.0 |
| Acetone | Lin1 | | 0.0928 | 0.0100 | 0.0480 | 0.0500 | -4.0 | 50.0 |
| Iodomethane | Ave | 0.4525 | 0.4881 | | 0.0270 | 0.0250 | 7.9 | 20.0 |
| Carbon disulfide | Ave | 0.7608 | 0.8375 | 0.1000 | 0.0275 | 0.0250 | 10.1 | 20.0 |
| Methyl acetate | Ave | 0.2654 | 0.2475 | 0.0500 | 0.0466 | 0.0500 | -6.7 | 50.0 |
| 3-Chloro-1-propene | Ave | 0.2028 | 0.1965 | | 0.0242 | 0.0250 | -3.1 | 20.0 |
| Methylene Chloride | Lin1 | | 0.3230 | 0.1000 | 0.0266 | 0.0250 | 6.3 | 50.0 |
| 2-Methyl-2-propanol | Ave | 0.0329 | 0.0273 | | 0.208 | 0.250 | -17.0 | 20.0 |
| Acrylonitrile | Ave | 0.1357 | 0.1246 | | 0.229 | 0.250 | -8.2 | 20.0 |
| Methyl tert-butyl ether | Ave | 0.8851 | 0.8484 | 0.1000 | 0.0240 | 0.0250 | -4.2 | 20.0 |
| trans-1,2-Dichloroethene | Ave | 0.3087 | 0.3147 | 0.1000 | 0.0255 | 0.0250 | 1.9 | 20.0 |
| Hexane | Ave | 0.0647 | 0.0439 | | 0.0169 | 0.0250 | -32.2* | 20.0 |
| Vinyl acetate | Ave | 0.5500 | 0.5605 | | 0.0255 | 0.0250 | 1.9 | 20.0 |
| 1,1-Dichloroethane | Ave | 0.6532 | 0.6503 | 0.2000 | 0.0249 | 0.0250 | -0.5 | 20.0 |
| 2-Butanone (MEK) | Ave | 0.1522 | 0.1310 | 0.0100 | 0.0430 | 0.0500 | -13.9 | 50.0 |
| cis-1,2-Dichloroethene | Ave | 0.3269 | 0.3439 | 0.1000 | 0.0263 | 0.0250 | 5.2 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.0799 | 0.0827 | | 0.0259 | 0.0250 | 3.5 | 20.0 |
| Chlorobromomethane | Ave | 0.1559 | 0.1544 | | 0.0248 | 0.0250 | -1.0 | 20.0 |
| Tetrahydrofuran | Ave | 0.0950 | 0.0873 | | 0.0459 | 0.0500 | -8.1 | 20.0 |
| Chloroform | Ave | 0.5792 | 0.5672 | 0.2000 | 0.0245 | 0.0250 | -2.1 | 20.0 |
| 1,1,1-Trichloroethane | Ave | 0.5004 | 0.4763 | 0.1000 | 0.0238 | 0.0250 | -4.8 | 20.0 |
| Cyclohexane | Ave | 0.6378 | 0.4526 | 0.1000 | 0.0177 | 0.0250 | -29.0* | 20.0 |
| 1,1-Dichloropropene | Ave | 0.4326 | 0.3933 | | 0.0227 | 0.0250 | -9.1 | 20.0 |
| Carbon tetrachloride | Ave | 0.4277 | 0.3883 | 0.1000 | 0.0227 | 0.0250 | -9.2 | 20.0 |
| Isobutyl alcohol | Ave | 0.0141 | 0.0111 | | 0.491 | 0.625 | -21.5* | 20.0 |
| Benzene | Ave | 1.199 | 1.194 | 0.5000 | 0.0249 | 0.0250 | -0.5 | 20.0 |
| 1,2-Dichloroethane | Ave | 0.5514 | 0.4834 | 0.1000 | 0.0219 | 0.0250 | -12.3 | 20.0 |
| n-Heptane | Ave | 0.0616 | 0.0453 | | 0.0184 | 0.0250 | -26.4* | 20.0 |
| Trichloroethene | Ave | 0.3070 | 0.3083 | 0.1500 | 0.0251 | 0.0250 | 0.4 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: CCVIS 240-587660/3 Calibration Date: 09/19/2023 10:52

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/10/2023 18:36

Lab File ID: 101505.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methylcyclohexane | Ave | 0.4535 | 0.3139 | 0.1000 | 0.0173 | 0.0250 | -30.8* | 20.0 |
| 1,2-Dichloropropane | Ave | 0.3621 | 0.3363 | 0.1000 | 0.0232 | 0.0250 | -7.1 | 20.0 |
| 1,4-Dioxane | Ave | 0.0027 | 0.0023 | | 0.418 | 0.500 | -16.5 | 50.0 |
| Dibromomethane | Ave | 0.1956 | 0.1779 | | 0.0227 | 0.0250 | -9.1 | 20.0 |
| Dichlorobromomethane | Ave | 0.4607 | 0.4075 | 0.1500 | 0.0221 | 0.0250 | -11.5 | 20.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.2213 | 0.1948 | | 0.0440 | 0.0500 | -12.0 | 20.0 |
| cis-1,3-Dichloropropene | Ave | 0.5354 | 0.4839 | 0.1500 | 0.0226 | 0.0250 | -9.6 | 50.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.3387 | 0.3045 | 0.0500 | 0.0450 | 0.0500 | -10.1 | 50.0 |
| Toluene | Ave | 1.639 | 1.558 | 0.4000 | 0.0238 | 0.0250 | -5.0 | 20.0 |
| trans-1,3-Dichloropropene | Ave | 0.6318 | 0.5317 | 0.1000 | 0.0210 | 0.0250 | -15.8 | 20.0 |
| Ethyl methacrylate | Ave | 0.4966 | 0.4286 | | 0.0216 | 0.0250 | -13.7 | 20.0 |
| 1,1,2-Trichloroethane | Ave | 0.3213 | 0.2955 | 0.1000 | 0.0230 | 0.0250 | -8.0 | 20.0 |
| Tetrachloroethene | Ave | 0.3074 | 0.2895 | 0.1500 | 0.0235 | 0.0250 | -5.8 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.5938 | 0.5223 | | 0.0220 | 0.0250 | -12.1 | 20.0 |
| 2-Hexanone | Ave | 0.2989 | 0.2561 | 0.0500 | 0.0428 | 0.0500 | -14.3 | 50.0 |
| Chlorodibromomethane | Ave | 0.3866 | 0.3592 | | 0.0232 | 0.0250 | -7.1 | 20.0 |
| Ethylene Dibromide | Ave | 0.3366 | 0.3093 | | 0.0230 | 0.0250 | -8.1 | 20.0 |
| Chlorobenzene | Ave | 1.045 | 1.066 | 0.3000 | 0.0255 | 0.0250 | 2.0 | 20.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.3921 | 0.3929 | | 0.0251 | 0.0250 | 0.2 | 20.0 |
| Ethylbenzene | Ave | 0.5815 | 0.5887 | | 0.0253 | 0.0250 | 1.2 | 20.0 |
| m-Xylene & p-Xylene | Ave | 0.7291 | 0.7313 | | 0.0251 | 0.0250 | 0.3 | 20.0 |
| o-Xylene | Ave | 0.7291 | 0.7397 | | 0.0254 | 0.0250 | 1.5 | 20.0 |
| Styrene | Ave | 1.239 | 1.261 | 0.3000 | 0.0254 | 0.0250 | 1.8 | 20.0 |
| Bromoform | Ave | 0.2736 | 0.2509 | 0.1000 | 0.0229 | 0.0250 | -8.3 | 20.0 |
| Isopropylbenzene | Ave | 1.831 | 1.777 | 0.1000 | 0.0243 | 0.0250 | -2.9 | 20.0 |
| 1,1,2,2-Tetrachloroethane | Ave | 0.7288 | 0.6866 | 0.3000 | 0.0236 | 0.0250 | -5.8 | 20.0 |
| Bromobenzene | Ave | 0.8230 | 0.8899 | | 0.0270 | 0.0250 | 8.1 | 20.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.2938 | 0.2934 | | 0.0250 | 0.0250 | -0.1 | 20.0 |
| 1,2,3-Trichloropropane | Ave | 0.2208 | 0.2222 | | 0.0252 | 0.0250 | 0.7 | 20.0 |
| N-Propylbenzene | Ave | 0.8277 | 0.8756 | | 0.0264 | 0.0250 | 5.8 | 20.0 |
| 2-Chlorotoluene | Ave | 0.7438 | 0.8099 | | 0.0272 | 0.0250 | 8.9 | 20.0 |
| 1,3,5-Trimethylbenzene | Ave | 2.667 | 2.744 | | 0.0257 | 0.0250 | 2.9 | 20.0 |
| 4-Chlorotoluene | Ave | 0.7830 | 0.8506 | | 0.0272 | 0.0250 | 8.6 | 20.0 |
| tert-Butylbenzene | Ave | 2.139 | 2.194 | | 0.0256 | 0.0250 | 2.6 | 20.0 |
| 1,2,4-Trimethylbenzene | Ave | 2.795 | 2.856 | | 0.0255 | 0.0250 | 2.2 | 20.0 |
| sec-Butylbenzene | Ave | 3.146 | 2.997 | | 0.0238 | 0.0250 | -4.7 | 20.0 |
| 1,3-Dichlorobenzene | Ave | 1.511 | 1.505 | 0.6000 | 0.0249 | 0.0250 | -0.4 | 20.0 |
| 4-Isopropyltoluene | Ave | 2.675 | 2.644 | | 0.0247 | 0.0250 | -1.2 | 20.0 |
| 1,4-Dichlorobenzene | Ave | 1.544 | 1.548 | 0.5000 | 0.0251 | 0.0250 | 0.3 | 20.0 |
| n-Butylbenzene | Ave | 2.501 | 2.261 | | 0.0226 | 0.0250 | -9.6 | 20.0 |
| 1,2-Dichlorobenzene | Ave | 1.437 | 1.408 | 0.4000 | 0.0245 | 0.0250 | -2.0 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Lab Sample ID: CCVIS 240-587660/3 Calibration Date: 09/19/2023 10:52

Instrument ID: A3UX10 Calib Start Date: 08/10/2023 15:15

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/10/2023 18:36

Lab File ID: 101505.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1506 | 0.1170 | 0.0500 | 0.0194 | 0.0250 | -22.3 | 50.0 |
| 1,2,4-Trichlorobenzene | Ave | 1.033 | 0.9234 | 0.2000 | 0.0223 | 0.0250 | -10.7 | 50.0 |
| Hexachlorobutadiene | Ave | 0.4312 | 0.3702 | | 0.0215 | 0.0250 | -14.1 | 50.0 |
| Naphthalene | Ave | 1.967 | 1.666 | | 0.0212 | 0.0250 | -15.3 | 50.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.8694 | 0.7540 | | 0.0217 | 0.0250 | -13.3 | 20.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2734 | 0.2717 | | 0.00928 | 0.00934 | -0.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3887 | 0.3455 | | 0.00830 | 0.00934 | -11.1 | 20.0 |
| Toluene-d8 (Surr) | Ave | 1.325 | 1.243 | | 0.00877 | 0.00934 | -6.2 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.5818 | 0.5400 | | 0.00867 | 0.00934 | -7.2 | 20.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101505.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Sep-2023 10:52:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-003
Operator ID: 434006 Instrument ID: A3UX10
Sublist: chrom-8260_10*sub79

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 19-Sep-2023 15:13:04 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: HE9L Date: 19-Sep-2023 11:19:40

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.714 | 5.714 | 0.000 | 98 | 600890 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.436 | 8.436 | 0.000 | 90 | 494193 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.708 | 10.708 | 0.000 | 97 | 271616 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.135 | 5.135 | 0.000 | 92 | 152474 | 9.34 | 9.28 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.430 | 5.430 | 0.000 | 97 | 193882 | 9.34 | 8.30 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.099 | 7.099 | 0.000 | 95 | 573870 | 9.34 | 8.77 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.572 | 9.572 | 0.000 | 90 | 249265 | 9.34 | 8.67 | |
| 9 Dichlorodifluoromethane | 85 | 1.632 | 1.632 | 0.000 | 99 | 473821 | 25.0 | 18.4 | |
| 10 Chloromethane | 50 | 1.833 | 1.833 | 0.000 | 100 | 842061 | 25.0 | 23.6 | |
| 11 Vinyl chloride | 62 | 1.940 | 1.940 | 0.000 | 98 | 584712 | 25.0 | 18.8 | |
| 12 Butadiene | 54 | 1.963 | 1.963 | 0.000 | 89 | 667879 | 25.0 | 18.8 | |
| 13 Bromomethane | 94 | 2.283 | 2.283 | 0.000 | 92 | 320560 | 25.0 | 21.7 | |
| 14 Chloroethane | 64 | 2.366 | 2.366 | 0.000 | 98 | 386831 | 25.0 | 21.7 | |
| 15 Dichlorofluoromethane | 67 | 2.602 | 2.602 | 0.000 | 98 | 899909 | 25.0 | 24.9 | |
| 16 Trichlorofluoromethane | 101 | 2.638 | 2.638 | 0.000 | 97 | 587889 | 25.0 | 19.9 | |
| 17 Ethyl ether | 59 | 2.875 | 2.875 | 0.000 | 98 | 443391 | 25.0 | 25.6 | |
| 18 Acrolein | 56 | 3.005 | 3.005 | 0.000 | 99 | 175509 | 125.0 | 198.4 | |
| 19 1,1-Dichloroethene | 96 | 3.099 | 3.099 | 0.000 | 94 | 378644 | 25.0 | 25.2 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.135 | 3.135 | 0.000 | 97 | 211116 | 25.0 | 16.8 | |
| 21 Acetone | 43 | 3.147 | 3.147 | 0.000 | 99 | 278818 | 50.0 | 48.0 | |
| 22 Iodomethane | 142 | 3.241 | 3.241 | 0.000 | 99 | 733254 | 25.0 | 27.0 | |
| 24 Carbon disulfide | 76 | 3.312 | 3.312 | 0.000 | 100 | 1258107 | 25.0 | 27.5 | |
| 27 Methyl acetate | 43 | 3.431 | 3.431 | 0.000 | 99 | 743591 | 50.0 | 46.6 | |
| 26 3-Chloro-1-propene | 76 | 3.443 | 3.443 | 0.000 | 88 | 295134 | 25.0 | 24.2 | |
| 28 Methylene Chloride | 84 | 3.573 | 3.573 | 0.000 | 95 | 485179 | 25.0 | 26.6 | |
| 29 2-Methyl-2-propanol | 59 | 3.656 | 3.656 | 0.000 | 96 | 410243 | 250.0 | 207.6 | |
| 31 Acrylonitrile | 53 | 3.786 | 3.786 | 0.000 | 98 | 1871429 | 250.0 | 229.4 | |
| 32 Methyl tert-butyl ether | 73 | 3.809 | 3.809 | 0.000 | 99 | 1274471 | 25.0 | 24.0 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.809 | 3.809 | 0.000 | 94 | 472806 | 25.0 | 25.5 | |
| 33 Hexane | 86 | 4.058 | 4.058 | 0.000 | 93 | 65896 | 25.0 | 16.9 | |
| 35 Vinyl acetate | 43 | 4.200 | 4.200 | 0.000 | 97 | 841942 | 25.0 | 25.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 1,1-Dichloroethane | 63 | 4.212 | 4.212 | 0.000 | 97 | 976873 | 25.0 | 24.9 | |
| 41 2-Butanone (MEK) | 43 | 4.697 | 4.697 | 0.000 | 98 | 393679 | 50.0 | 43.0 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.709 | 4.709 | 0.000 | 88 | 516579 | 25.0 | 26.3 | |
| 39 2,2-Dichloropropane | 97 | 4.721 | 4.721 | 0.000 | 92 | 124164 | 25.0 | 25.9 | |
| 45 Chlorobromomethane | 128 | 4.922 | 4.922 | 0.000 | 95 | 232007 | 25.0 | 24.8 | |
| 46 Tetrahydrofuran | 42 | 4.922 | 4.922 | 0.000 | 93 | 262266 | 50.0 | 45.9 | |
| 47 Chloroform | 83 | 5.004 | 5.004 | 0.000 | 98 | 852029 | 25.0 | 24.5 | |
| 48 1,1,1-Trichloroethane | 97 | 5.146 | 5.146 | 0.000 | 97 | 715440 | 25.0 | 23.8 | |
| 49 Cyclohexane | 56 | 5.206 | 5.206 | 0.000 | 93 | 679947 | 25.0 | 17.7 | |
| 51 Carbon tetrachloride | 117 | 5.277 | 5.277 | 0.000 | 88 | 583254 | 25.0 | 22.7 | |
| 50 1,1-Dichloropropene | 75 | 5.277 | 5.277 | 0.000 | 88 | 590789 | 25.0 | 22.7 | |
| 52 Isobutyl alcohol | 41 | 5.348 | 5.348 | 0.000 | 94 | 342006 | 625.0 | 490.5 | |
| 53 Benzene | 78 | 5.454 | 5.454 | 0.000 | 97 | 1792917 | 25.0 | 24.9 | |
| 54 1,2-Dichloroethane | 62 | 5.501 | 5.501 | 0.000 | 97 | 726187 | 25.0 | 21.9 | |
| 56 n-Heptane | 100 | 5.691 | 5.691 | 0.000 | 96 | 68112 | 25.0 | 18.4 | |
| 58 Trichloroethene | 130 | 6.022 | 6.022 | 0.000 | 97 | 463130 | 25.0 | 25.1 | |
| 60 Methylcyclohexane | 83 | 6.223 | 6.223 | 0.000 | 97 | 471610 | 25.0 | 17.3 | |
| 61 1,2-Dichloropropane | 63 | 6.247 | 6.247 | 0.000 | 95 | 505247 | 25.0 | 23.2 | |
| 64 1,4-Dioxane | 88 | 6.306 | 6.306 | 0.000 | 96 | 68123 | 500.0 | 417.7 | |
| 63 Dibromomethane | 93 | 6.330 | 6.330 | 0.000 | 94 | 267231 | 25.0 | 22.7 | |
| 65 Dichlorobromomethane | 83 | 6.472 | 6.472 | 0.000 | 98 | 612145 | 25.0 | 22.1 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.708 | 6.708 | 0.000 | 93 | 585262 | 50.0 | 44.0 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.850 | 6.850 | 0.000 | 90 | 726965 | 25.0 | 22.6 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.981 | 6.981 | 0.000 | 98 | 914831 | 50.0 | 45.0 | |
| 70 Toluene | 91 | 7.158 | 7.158 | 0.000 | 97 | 1924444 | 25.0 | 23.8 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.359 | 7.359 | 0.000 | 99 | 656880 | 25.0 | 21.0 | |
| 72 Ethyl methacrylate | 69 | 7.395 | 7.395 | 0.000 | 95 | 529522 | 25.0 | 21.6 | |
| 73 1,1,2-Trichloroethane | 97 | 7.549 | 7.549 | 0.000 | 96 | 365121 | 25.0 | 23.0 | |
| 74 Tetrachloroethene | 164 | 7.631 | 7.631 | 0.000 | 96 | 357685 | 25.0 | 23.5 | |
| 75 1,3-Dichloropropane | 76 | 7.702 | 7.702 | 0.000 | 96 | 645261 | 25.0 | 22.0 | |
| 76 2-Hexanone | 43 | 7.726 | 7.726 | 0.000 | 96 | 632731 | 50.0 | 42.8 | |
| 78 Chlorodibromomethane | 129 | 7.892 | 7.892 | 0.000 | 90 | 443771 | 25.0 | 23.2 | |
| 80 Ethylene Dibromide | 107 | 8.010 | 8.010 | 0.000 | 98 | 382124 | 25.0 | 23.0 | |
| 82 Chlorobenzene | 112 | 8.472 | 8.472 | 0.000 | 92 | 1317269 | 25.0 | 25.5 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.542 | 8.542 | 0.000 | 93 | 485426 | 25.0 | 25.1 | |
| 84 Ethylbenzene | 106 | 8.554 | 8.554 | 0.000 | 99 | 727330 | 25.0 | 25.3 | |
| 85 m-Xylene & p-Xylene | 106 | 8.673 | 8.673 | 0.000 | 99 | 903489 | 25.0 | 25.1 | |
| 86 o-Xylene | 106 | 9.051 | 9.051 | 0.000 | 98 | 913828 | 25.0 | 25.4 | |
| 87 Styrene | 104 | 9.063 | 9.063 | 0.000 | 94 | 1557679 | 25.0 | 25.4 | |
| 88 Bromoform | 173 | 9.241 | 9.241 | 0.000 | 96 | 309973 | 25.0 | 22.9 | |
| 89 Isopropylbenzene | 105 | 9.394 | 9.394 | 0.000 | 97 | 2195586 | 25.0 | 24.3 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.690 | 9.690 | 0.000 | 97 | 466212 | 25.0 | 23.6 | |
| 93 Bromobenzene | 156 | 9.714 | 9.714 | 0.000 | 95 | 604267 | 25.0 | 27.0 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.738 | 9.738 | 0.000 | 81 | 199258 | 25.0 | 25.0 | |
| 94 1,2,3-Trichloropropane | 110 | 9.761 | 9.761 | 0.000 | 92 | 150908 | 25.0 | 25.2 | |
| 96 N-Propylbenzene | 120 | 9.809 | 9.809 | 0.000 | 99 | 594585 | 25.0 | 26.4 | |
| 97 2-Chlorotoluene | 126 | 9.903 | 9.903 | 0.000 | 97 | 549958 | 25.0 | 27.2 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.974 | 9.974 | 0.000 | 95 | 1863255 | 25.0 | 25.7 | |
| 99 4-Chlorotoluene | 126 | 10.022 | 10.022 | 0.000 | 98 | 577564 | 25.0 | 27.2 | |
| 100 tert-Butylbenzene | 119 | 10.294 | 10.294 | 0.000 | 94 | 1489869 | 25.0 | 25.6 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.353 | 10.353 | 0.000 | 98 | 1939008 | 25.0 | 25.5 | |
| 103 sec-Butylbenzene | 105 | 10.507 | 10.507 | 0.000 | 96 | 2035402 | 25.0 | 23.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 104 1,3-Dichlorobenzene | 146 | 10.637 | 10.637 | 0.000 | 97 | 1021668 | 25.0 | 24.9 | |
| 105 4-Isopropyltoluene | 119 | 10.661 | 10.661 | 0.000 | 97 | 1795280 | 25.0 | 24.7 | |
| 106 1,4-Dichlorobenzene | 146 | 10.732 | 10.732 | 0.000 | 92 | 1051404 | 25.0 | 25.1 | |
| 109 n-Butylbenzene | 91 | 11.063 | 11.063 | 0.000 | 98 | 1535418 | 25.0 | 22.6 | |
| 110 1,2-Dichlorobenzene | 146 | 11.098 | 11.098 | 0.000 | 97 | 956087 | 25.0 | 24.5 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.879 | 11.879 | 0.000 | 82 | 79417 | 25.0 | 19.4 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.696 | 12.696 | 0.000 | 94 | 626997 | 25.0 | 22.3 | |
| 114 Hexachlorobutadiene | 225 | 12.850 | 12.850 | 0.000 | 96 | 251376 | 25.0 | 21.5 | |
| 115 Naphthalene | 128 | 12.980 | 12.980 | 0.000 | 99 | 1131045 | 25.0 | 21.2 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.216 | 13.216 | 0.000 | 98 | 512016 | 25.0 | 21.7 | |
| S 156 Total BTEX | 1 | | | | 0 | | 125.0 | 124.4 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 92.8 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 50.4 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| vmrgas_00494 | Amount Added: | 20.00 | Units: uL | |
| vmarolistdw_00502 | Amount Added: | 20.00 | Units: uL | |
| VMRPRIMW_00548 | Amount Added: | 20.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

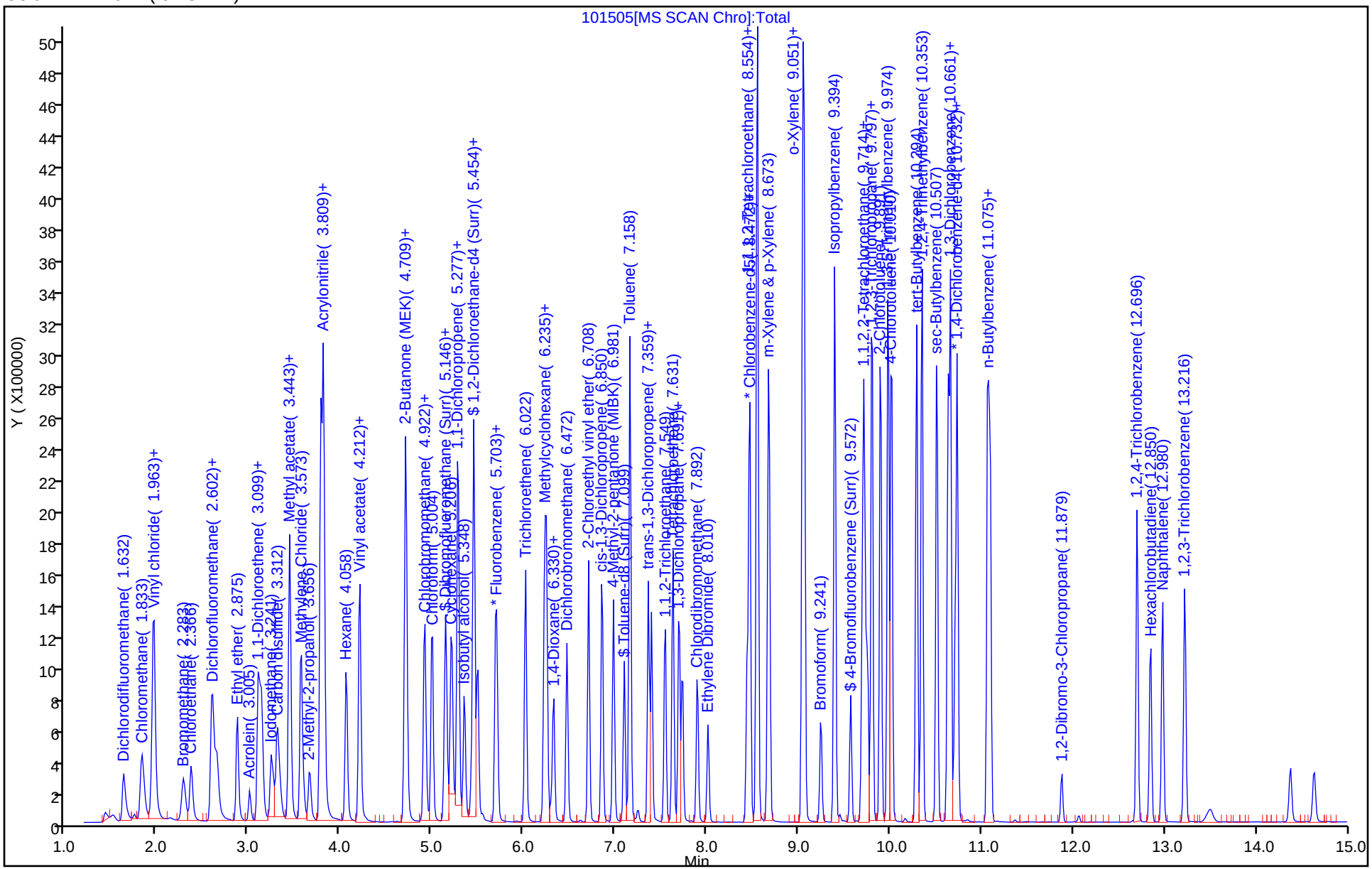
Report Date: 19-Sep-2023 15:13:04 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101505.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 10:52:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | CCVIS | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\BFB10059.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 10-Aug-2023 14:37:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0132313-001
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 14-Aug-2023 08:55:27 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1657

First Level Reviewer: HE9L Date: 11-Aug-2023 12:48:57

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 8 BFB | 95 | 3.836 | 3.836 | 0.000 | 0 | 326488 | NR | NR | |

## QC Flag Legend

Processing Flags
NR - Missing Quant Standard

## Reagents:

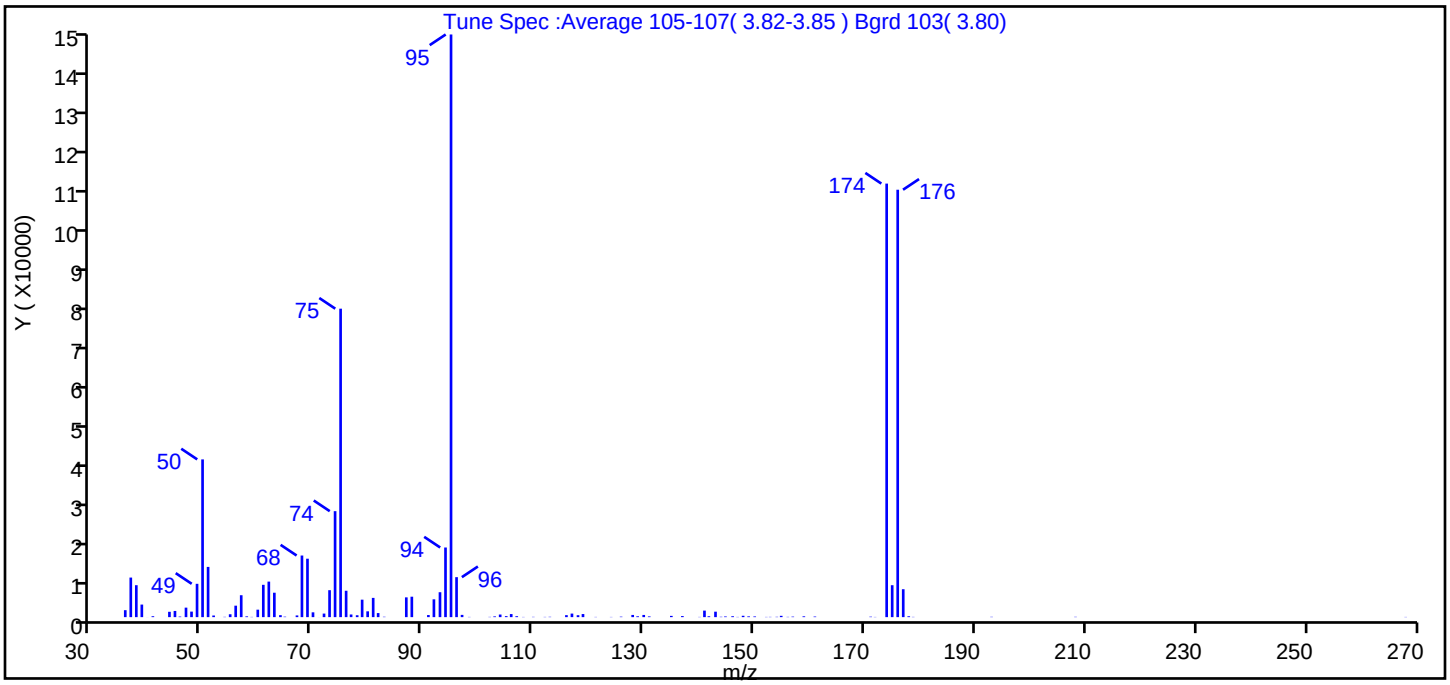
vmbfb_00032 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\BFB10059.D
Injection Date: 10-Aug-2023 14:37:30 Instrument ID: A3UX10
Lims ID: BFB
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Tune Method: BFB Method 8260

$ 8 BFB




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 27.1 |
| 75 | 30 to 60% of m/z 95 | 52.9 |
| 96 | 5 to 9% of m/z 95 | 6.9 |
| 173 | Less than 2% of m/z 174 | 0.0 (0.0) |
| 174 | 50 to 120% of m/z 95 | 74.4 |
| 175 | 5 to 9% of m/z 174 | 5.5 (7.4) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 73.4 (98.6) |
| 177 | 5 to 9% of m/z 176 | 4.8 (6.5) |

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\BFB10059.D\8260_10.rslt\spectra.d
Injection Date: 10-Aug-2023 14:37:30
Spectrum: Tune Spec :Average 105-107( 3.82-3.85 ) Bgrd 103( 3.80)
Base Peak: 95.05
Minimum % Base Peak: 0
Number of Points: 108

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 1744 | 67.00 | 429 | 98.00 | 56 | 143.00 | 1368 |
| 37.00 | 9907 | 68.00 | 15425 | 102.00 | 65 | 144.00 | 92 |
| 38.00 | 7997 | 69.00 | 14627 | 103.00 | 187 | 145.00 | 170 |
| 39.00 | 3147 | 70.00 | 1206 | 104.00 | 654 | 146.00 | 226 |
| 40.00 | 9 | 71.00 | 10 | 105.00 | 252 | 147.00 | 55 |
| 41.00 | 227 | 72.00 | 893 | 106.00 | 768 | 148.00 | 341 |
| 44.00 | 1339 | 73.00 | 6748 | 107.00 | 232 | 149.00 | 189 |
| 45.00 | 1549 | 74.00 | 26528 | 108.00 | 52 | 150.00 | 173 |
| 46.00 | 144 | 75.00 | 77216 | 110.00 | 72 | 152.00 | 56 |
| 47.00 | 2379 | 76.00 | 6607 | 112.00 | 59 | 153.00 | 67 |
| 48.00 | 1386 | 77.00 | 666 | 113.00 | 87 | 154.00 | 83 |
| 49.00 | 8343 | 78.00 | 477 | 116.00 | 497 | 155.00 | 330 |
| 50.00 | 39488 | 79.00 | 4375 | 117.00 | 891 | 156.00 | 67 |
| 51.00 | 12575 | 80.00 | 1456 | 118.00 | 484 | 157.00 | 129 |
| 52.00 | 409 | 81.00 | 4821 | 119.00 | 777 | 159.00 | 203 |
| 54.00 | 72 | 82.00 | 1021 | 121.00 | 56 | 161.00 | 149 |
| 55.00 | 721 | 83.00 | 94 | 124.00 | 52 | 171.00 | 117 |
| 56.00 | 2869 | 86.00 | 1 | 126.00 | 121 | 172.00 | 50 |
| 57.00 | 5487 | 87.00 | 4951 | 128.00 | 551 | 174.00 | 108528 |
| 58.00 | 197 | 88.00 | 5116 | 129.00 | 209 | 175.00 | 7994 |
| 59.00 | 57 | 91.00 | 525 | 130.00 | 550 | 176.00 | 106992 |
| 60.00 | 1870 | 92.00 | 4464 | 131.00 | 180 | 177.00 | 6991 |
| 61.00 | 8093 | 93.00 | 6238 | 135.00 | 317 | 178.00 | 217 |
| 62.00 | 8897 | 94.00 | 17432 | 137.00 | 266 | 179.00 | 63 |
| 63.00 | 6115 | 95.00 | 145856 | 140.00 | 57 | 193.00 | 81 |
| 64.00 | 497 | 96.00 | 10010 | 141.00 | 1636 | 208.00 | 80 |
| 65.00 | 117 | 97.00 | 566 | 142.00 | 218 | 268.00 | 52 |

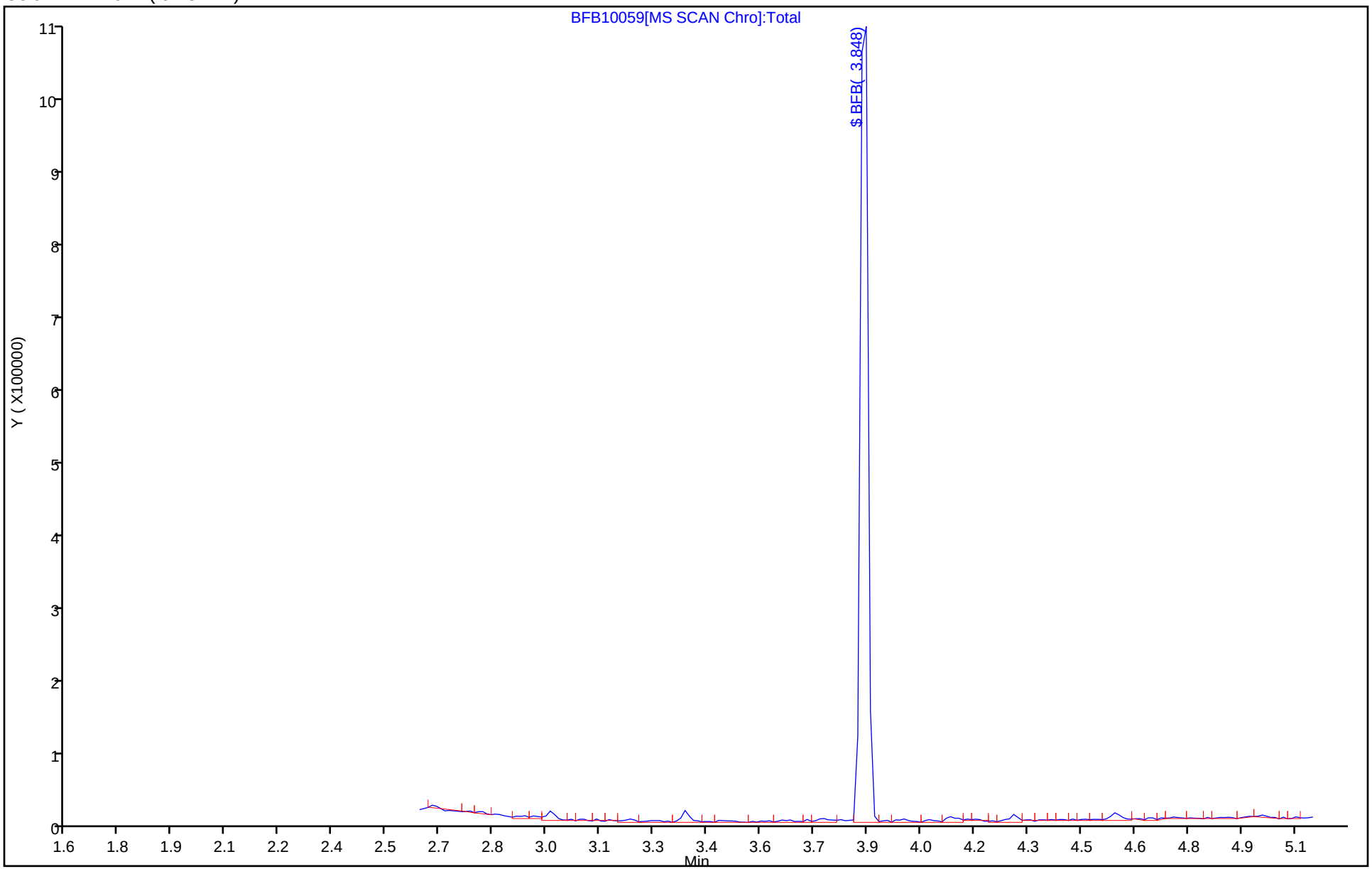
Report Date: 14-Aug-2023 08:55:27 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\BFB10059.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 14:37:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | BFB | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\10087.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 19-Sep-2023 09:53:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-001
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 19-Sep-2023 15:13:01 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1642

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 8 BFB | 95 | 3.838 | 3.838 | 0.000 | 0 | 166273 | NR | NR | |

## QC Flag Legend

Processing Flags
NR - Missing Quant Standard

## Reagents:

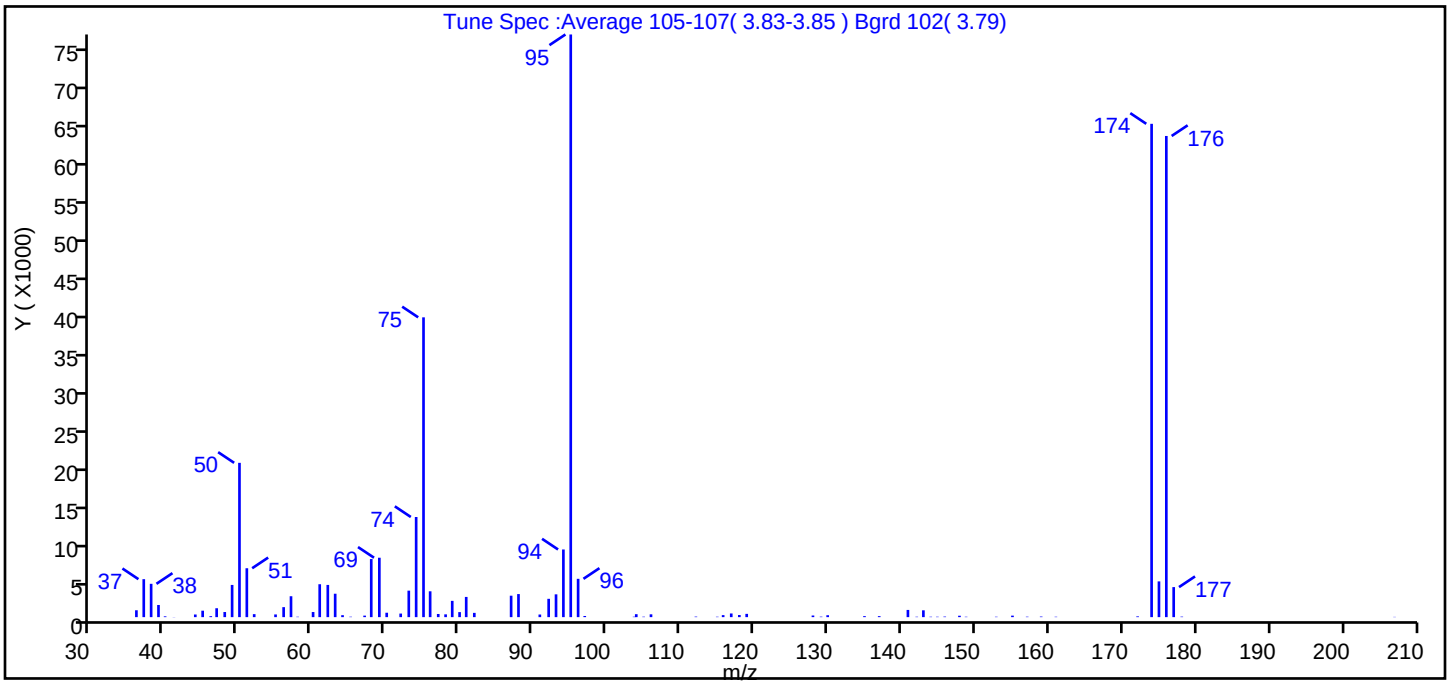
vmbfb_00032 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\10087.D
Injection Date: 19-Sep-2023 09:53:30 Instrument ID: A3UX10
Lims ID: BFB
Client ID:
Operator ID: 434006 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_10 Limit Group: MSV 8260C ICAL
Tune Method: BFB Method 8260

$ 8 BFB




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 26.5 |
| 75 | 30 to 60% of m/z 95 | 51.5 |
| 96 | 5 to 9% of m/z 95 | 6.6 |
| 173 | Less than 2% of m/z 174 | 0.0 (0.0) |
| 174 | 50 to 120% of m/z 95 | 84.7 |
| 175 | 5 to 9% of m/z 174 | 6.1 (7.2) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 82.6 (97.5) |
| 177 | 5 to 9% of m/z 176 | 5.2 (6.2) |

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\10087.D\8260_10.rslt\spectra.d
Injection Date: 19-Sep-2023 09:53:30
Spectrum: Tune Spec :Average 105-107( 3.83-3.85 ) Bgrd 102( 3.79)
Base Peak: 95.05
Minimum % Base Peak: 0
Number of Points: 84

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 906 | 62.00 | 4240 | 91.00 | 346 | 137.00 | 131 |
| 37.00 | 4998 | 63.00 | 3083 | 92.00 | 2413 | 141.00 | 949 |
| 38.00 | 4387 | 64.00 | 259 | 93.00 | 3002 | 142.00 | 55 |
| 39.00 | 1600 | 65.00 | 56 | 94.00 | 8907 | 143.00 | 900 |
| 40.00 | 105 | 67.00 | 201 | 95.00 | 76696 | 144.00 | 55 |
| 41.00 | 19 | 68.00 | 7645 | 96.00 | 5044 | 145.00 | 54 |
| 44.00 | 349 | 69.00 | 7821 | 97.00 | 152 | 146.00 | 73 |
| 45.00 | 850 | 70.00 | 580 | 104.00 | 57 | 148.00 | 186 |
| 46.00 | 127 | 72.00 | 471 | 104.00 | 389 | 149.00 | 53 |
| 47.00 | 1173 | 73.00 | 3487 | 105.00 | 60 | 153.00 | 54 |
| 48.00 | 675 | 74.00 | 13182 | 106.00 | 372 | 155.00 | 199 |
| 49.00 | 4239 | 75.00 | 39464 | 112.00 | 71 | 157.00 | 60 |
| 50.00 | 20312 | 76.00 | 3402 | 115.00 | 55 | 159.00 | 77 |
| 51.00 | 6437 | 77.00 | 416 | 116.00 | 266 | 161.00 | 53 |
| 52.00 | 395 | 78.00 | 368 | 117.00 | 483 | 172.00 | 100 |
| 55.00 | 356 | 79.00 | 2143 | 118.00 | 278 | 174.00 | 64936 |
| 56.00 | 1316 | 80.00 | 662 | 119.00 | 432 | 175.00 | 4706 |
| 57.00 | 2752 | 81.00 | 2661 | 128.00 | 215 | 176.00 | 63336 |
| 58.00 | 53 | 82.00 | 562 | 129.00 | 64 | 177.00 | 3955 |
| 60.00 | 673 | 87.00 | 2823 | 130.00 | 252 | 178.00 | 67 |
| 61.00 | 4333 | 88.00 | 3036 | 135.00 | 132 | 207.00 | 33 |

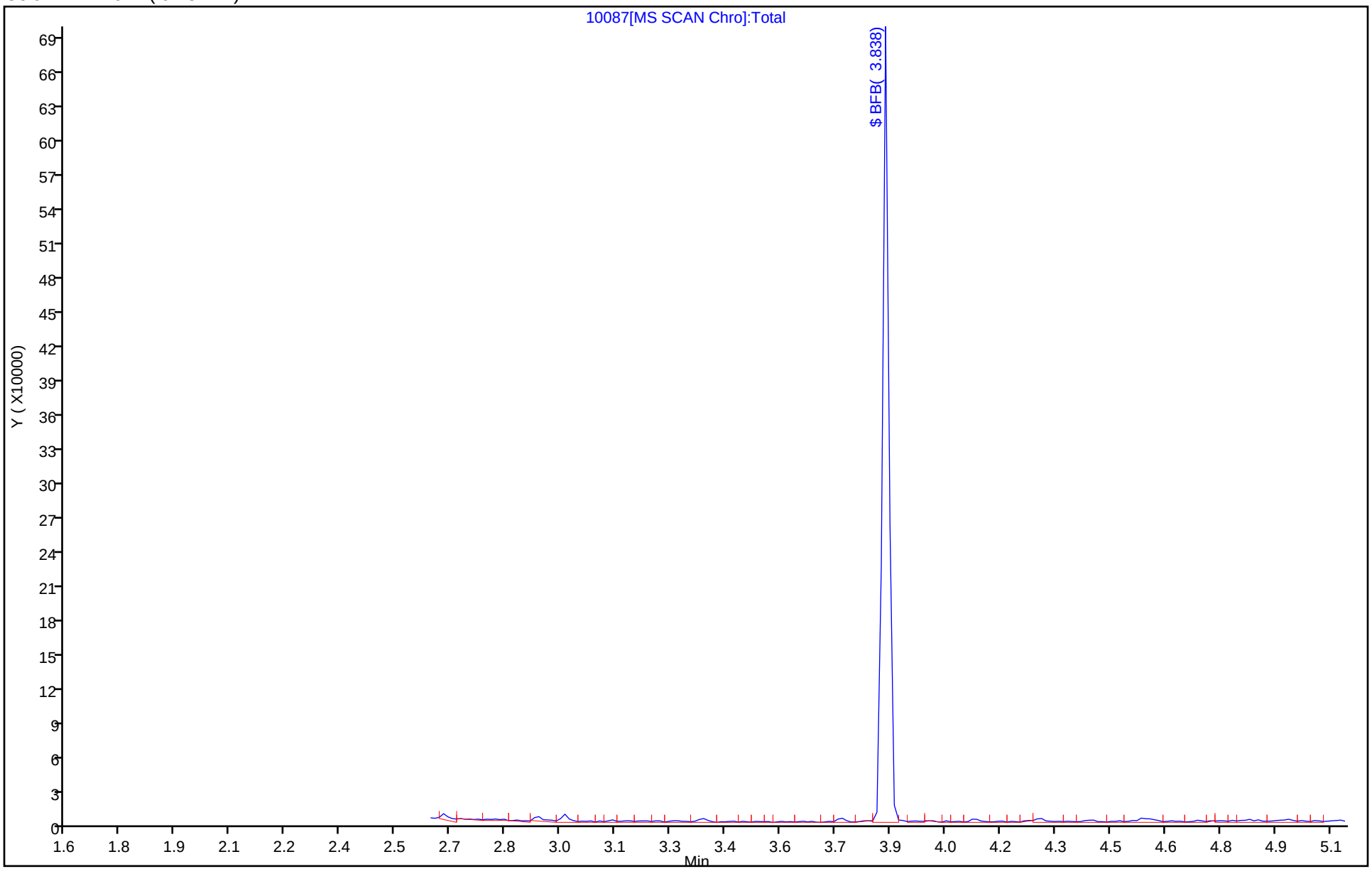
Report Date: 19-Sep-2023 15:13:01 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\10087.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 09:53:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | BFB | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-587660/7

Matrix: Water | Lab File ID: 101509.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 12:31

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 92 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 92 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 96 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101509.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 19-Sep-2023 12:31:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-007
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 19-Sep-2023 15:13:04 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: HE9L Date: 19-Sep-2023 14:02:08

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.703 | 5.714 | -0.011 | 98 | 578180 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.436 | 8.436 | 0.000 | 92 | 465455 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.708 | 10.708 | 0.000 | 97 | 249658 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.135 | 5.135 | 0.000 | 93 | 141558 | 9.34 | 8.96 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.431 | 5.430 | 0.001 | 96 | 194102 | 9.34 | 8.64 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.099 | 7.099 | 0.000 | 95 | 540120 | 9.34 | 8.76 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.572 | 9.572 | 0.000 | 89 | 232093 | 9.34 | 8.57 | |
| 9 Dichlorodifluoromethane | 85 | | 1.632 | | | | | ND | |
| 10 Chloromethane | 50 | | 1.833 | | | | | ND | 7 |
| 11 Vinyl chloride | 62 | | 1.940 | | | | | ND | 7 |
| 12 Butadiene | 54 | | 1.963 | | | | | ND | 7 |
| 13 Bromomethane | 94 | | 2.283 | | | | | ND | |
| 14 Chloroethane | 64 | | 2.366 | | | | | ND | |
| 15 Dichlorofluoromethane | 67 | | 2.602 | | | | | ND | |
| 16 Trichlorofluoromethane | 101 | | 2.638 | | | | | ND | |
| 17 Ethyl ether | 59 | | 2.875 | | | | | ND | |
| 18 Acrolein | 56 | | 3.005 | | | | | ND | |
| 19 1,1-Dichloroethene | 96 | | 3.099 | | | | | ND | 7 |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | | 3.135 | | | | | ND | |
| 21 Acetone | 43 | | 3.147 | | | | | ND | 7 |
| 23 Methylal | 45 | | 3.232 | | | | | ND | |
| 22 Iodomethane | 142 | | 3.241 | | | | | ND | |
| 24 Carbon disulfide | 76 | 3.313 | 3.312 | 0.001 | 100 | 14442 | | 0.3283 | |
| 25 Acetonitrile | 41 | 3.407 | 3.409 | -0.002 | 74 | 4616 | | 1.90 | |
| 27 Methyl acetate | 43 | | 3.431 | | | | | ND | |
| 26 3-Chloro-1-propene | 76 | | 3.443 | | | | | ND | |
| 28 Methylene Chloride | 84 | | 3.573 | | | | | ND | 7 |
| 29 2-Methyl-2-propanol | 59 | 3.668 | 3.656 | 0.012 | 67 | 880 | | 0.4627 | |
| 31 Acrylonitrile | 53 | 3.786 | 3.786 | 0.000 | 97 | 1286 | | 0.1639 | |
| 32 Methyl tert-butyl ether | 73 | | 3.809 | | | | | ND | |
| 30 trans-1,2-Dichloroethene | 96 | 3.810 | 3.809 | 0.001 | 89 | 2269 | | 0.1271 | |
| 33 Hexane | 86 | | 4.058 | | | | | ND | 7 |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 35 Vinyl acetate | 43 | | 4.200 | | | | | ND | 7 |
| 34 1,1-Dichloroethane | 63 | | 4.212 | | | | | ND | |
| 36 Isopropyl ether | 87 | | 4.238 | | | | | ND | |
| 37 2-Chloro-1,3-butadiene | 53 | | 4.273 | | | | | ND | 7 |
| 38 Tert-butyl ethyl ether | 59 | | 4.545 | | | | | ND | |
| 41 2-Butanone (MEK) | 43 | | 4.697 | | | | | ND | |
| 40 cis-1,2-Dichloroethene | 96 | | 4.709 | | | | | ND | 7 |
| 39 2,2-Dichloropropane | 97 | | 4.721 | | | | | ND | |
| 42 Ethyl acetate | 43 | 4.697 | 4.723 | -0.026 | 50 | 2641 | | 0.1513 | |
| 43 Propionitrile | 54 | | 4.758 | | | | | ND | U |
| 44 Methacrylonitrile | 41 | | 4.888 | | | | | ND | U |
| 45 Chlorobromomethane | 128 | | 4.922 | | | | | ND | |
| 46 Tetrahydrofuran | 42 | | 4.922 | | | | | ND | |
| 47 Chloroform | 83 | | 5.004 | | | | | ND | 7 |
| 48 1,1,1-Trichloroethane | 97 | | 5.146 | | | | | ND | |
| 49 Cyclohexane | 56 | | 5.206 | | | | | ND | |
| 51 Carbon tetrachloride | 117 | | 5.277 | | | | | ND | |
| 50 1,1-Dichloropropene | 75 | | 5.277 | | | | | ND | 7 |
| 52 Isobutyl alcohol | 41 | | 5.348 | | | | | ND | |
| 53 Benzene | 78 | | 5.454 | | | | | ND | |
| 54 1,2-Dichloroethane | 62 | | 5.501 | | | | | ND | 7 |
| 158 Isooctane | 57 | 5.549 | 5.551 | -0.002 | 97 | 6385 | | NC | |
| 55 Tert-amyl methyl ether | 73 | | 5.551 | | | | | ND | |
| 56 n-Heptane | 100 | | 5.691 | | | | | ND | U |
| 57 n-Butanol | 56 | 5.928 | 5.918 | 0.010 | 47 | 439 | | 0.7505 | |
| 58 Trichloroethene | 130 | | 6.022 | | | | | ND | 7 |
| 59 Ethyl acrylate | 55 | | 6.072 | | | | | ND | |
| 60 Methylcyclohexane | 83 | | 6.223 | | | | | ND | 7 |
| 61 1,2-Dichloropropane | 63 | | 6.247 | | | | | ND | |
| 62 Methyl methacrylate | 41 | | 6.273 | | | | | ND | 7 |
| 64 1,4-Dioxane | 88 | | 6.306 | | | | | ND | |
| 63 Dibromomethane | 93 | | 6.330 | | | | | ND | |
| 65 Dichlorobromomethane | 83 | | 6.472 | | | | | ND | 7 |
| 66 2-Nitropropane | 41 | | 6.663 | | | | | ND | 7 |
| 67 2-Chloroethyl vinyl ether | 63 | | 6.708 | | | | | ND | |
| 68 cis-1,3-Dichloropropene | 75 | | 6.850 | | | | | ND | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | | 6.981 | | | | | ND | |
| 70 Toluene | 91 | | 7.158 | | | | | ND | 7 |
| 71 trans-1,3-Dichloropropene | 75 | | 7.359 | | | | | ND | 7 |
| 72 Ethyl methacrylate | 69 | | 7.395 | | | | | ND | |
| 73 1,1,2-Trichloroethane | 97 | | 7.549 | | | | | ND | |
| 74 Tetrachloroethene | 164 | | 7.631 | | | | | ND | 7 |
| 75 1,3-Dichloropropane | 76 | | 7.702 | | | | | ND | |
| 76 2-Hexanone | 43 | | 7.726 | | | | | ND | |
| 77 n-Butyl acetate | 56 | | 7.823 | | | | | ND | 7 |
| 79 Tetrahydrothiophene | 60 | | 7.871 | | | | | ND | |
| 78 Chlorodibromomethane | 129 | | 7.892 | | | | | ND | |
| 80 Ethylene Dibromide | 107 | | 8.010 | | | | | ND | |
| 81 1-Chlorohexane | 91 | | 8.438 | | | | | ND | 7 |
| 82 Chlorobenzene | 112 | | 8.472 | | | | | ND | |
| 83 1,1,1,2-Tetrachloroethane | 131 | | 8.542 | | | | | ND | |
| 84 Ethylbenzene | 106 | | 8.554 | | | | | ND | 7 |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 85 m-Xylene & p-Xylene | 106 | | 8.673 | | | | | ND | |
| 86 o-Xylene | 106 | | 9.051 | | | | | ND | |
| 87 Styrene | 104 | | 9.063 | | | | | ND | 7 |
| 88 Bromoform | 173 | | 9.241 | | | | | ND | |
| 89 Isopropylbenzene | 105 | | 9.394 | | | | | ND | 7 |
| 90 1,4-Dichlorobutane | 55 | | 9.469 | | | | | ND | |
| 91 Cyclohexanone | 55 | | 9.491 | | | | | ND | |
| 120 Propene oxide | 58 | | 9.547 | | | | | ND | |
| 92 1,1,2,2-Tetrachloroethane | 83 | | 9.690 | | | | | ND | |
| 93 Bromobenzene | 156 | | 9.714 | | | | | ND | 7 |
| 95 trans-1,4-Dichloro-2-butene | 53 | | 9.738 | | | | | ND | |
| 94 1,2,3-Trichloropropane | 110 | | 9.761 | | | | | ND | |
| 96 N-Propylbenzene | 120 | | 9.809 | | | | | ND | 7 |
| 126 3-Ethyltoluene | 105 | | 9.837 | | | | | ND | |
| 97 2-Chlorotoluene | 126 | | 9.903 | | | | | ND | 7 |
| 98 1,3,5-Trimethylbenzene | 105 | | 9.974 | | | | | ND | 7 |
| 99 4-Chlorotoluene | 126 | | 10.022 | | | | | ND | 7 |
| 119 2-Ethyltoluene | 105 | | 10.103 | | | | | ND | |
| 100 tert-Butylbenzene | 119 | | 10.294 | | | | | ND | 7 |
| 101 Pentachloroethane | 167 | | 10.332 | | | | | ND | |
| 102 1,2,4-Trimethylbenzene | 105 | | 10.353 | | | | | ND | 7 |
| 103 sec-Butylbenzene | 105 | | 10.507 | | | | | ND | 7 |
| 104 1,3-Dichlorobenzene | 146 | | 10.637 | | | | | ND | 7 |
| 105 4-Isopropyltoluene | 119 | | 10.661 | | | | | ND | 7 |
| 106 1,4-Dichlorobenzene | 146 | | 10.732 | | | | | ND | 7 |
| 107 1,2,3-Trimethylbenzene | 105 | | 10.758 | | | | | ND | 7 |
| 108 Benzyl chloride | 126 | | 10.852 | | | | | ND | |
| 109 n-Butylbenzene | 91 | | 11.063 | | | | | ND | 7 |
| 110 1,2-Dichlorobenzene | 146 | | 11.098 | | | | | ND | 7 |
| 111 1,2-Dibromo-3-Chloropropane | 157 | | 11.879 | | | | | ND | |
| 112 1,3,5-Trichlorobenzene | 180 | 12.057 | 12.059 | -0.002 | 95 | 3960 | | 0.1422 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.696 | 12.696 | 0.000 | 94 | 3194 | | 0.1238 | |
| 114 Hexachlorobutadiene | 225 | 12.850 | 12.850 | 0.000 | 88 | 2492 | | 0.2315 | |
| 115 Naphthalene | 128 | 12.980 | 12.980 | 0.000 | 96 | 6627 | | 0.1350 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.217 | 13.216 | 0.001 | 92 | 3080 | | 0.1419 | |
| 117 2-Methylnaphthalene | 142 | 14.376 | 14.378 | -0.002 | 97 | 31032 | | 1.54 | |
| 157 1-Methylnaphthalene | 142 | 14.637 | 14.627 | 0.010 | 91 | 30216 | | NC | |
| 122 Epichlorohydrin | 1 | | 0.175 | | | | | ND | |
| 124 Ethylene oxide | 1 | | 0.175 | | | | | ND | |
| 118 1,3-Diethylbenzene TIC | 1 | | 0.175 | | | | | ND | |
| S 156 Total BTEX | 1 | | 0.175 | | | | | ND | |
| S 131 Trihalomethanes, Total | 1 | | 0.175 | | | | | ND | 7 |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 0.1271 | |
| S 129 1,3-Dichloropropene, Total | 75 | | 6.935 | | | | | ND | 7 |
| S 130 Xylenes, Total | 106 | | 16.705 | | | | | ND | 7 |

## QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags
U - Marked Undetected

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

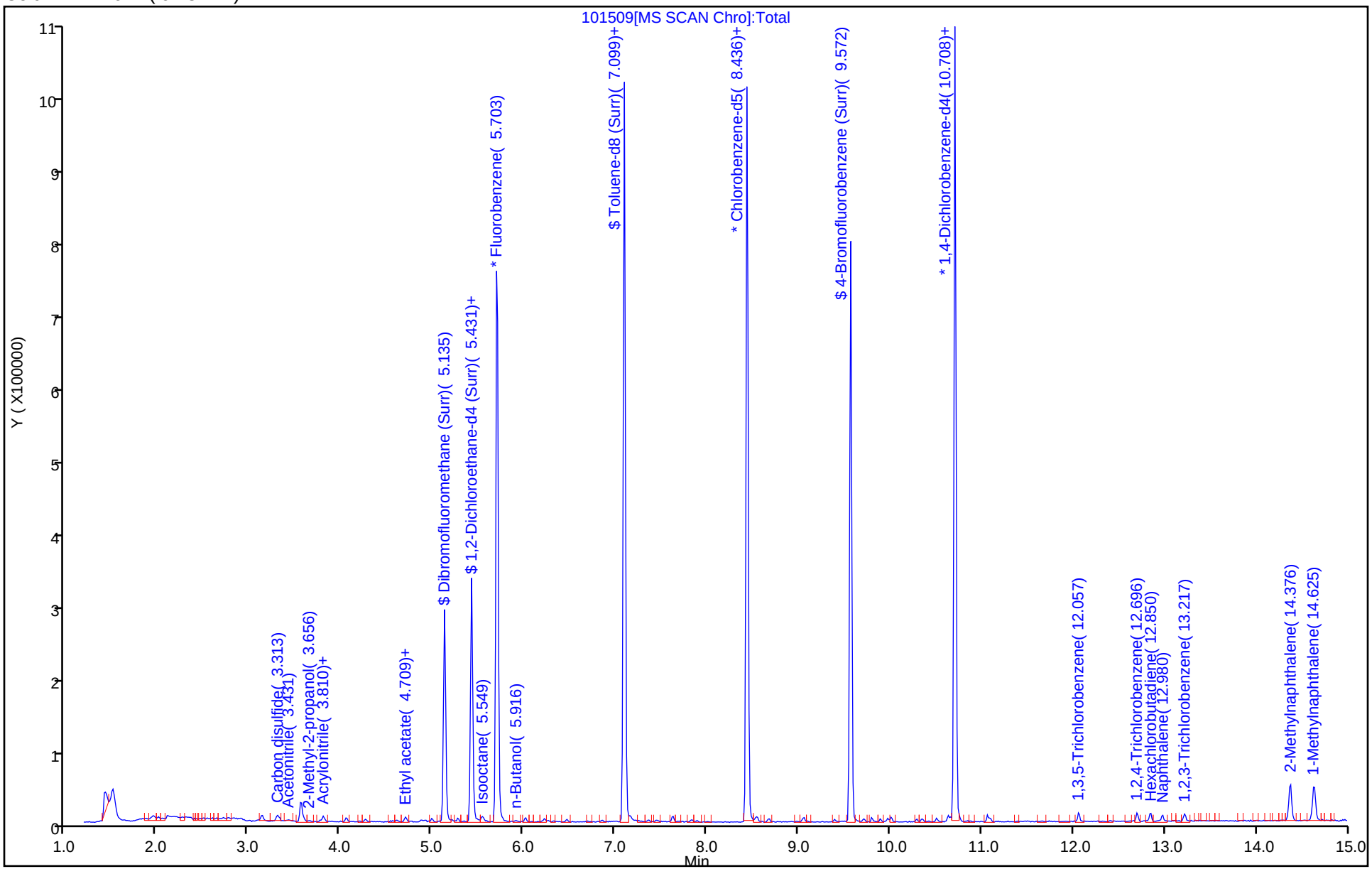
Report Date: 19-Sep-2023 15:13:24 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101509.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 12:31:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | MB | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101509.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 19-Sep-2023 12:31:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-007
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 19-Sep-2023 15:13:04 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: HE9L Date: 19-Sep-2023 14:02:08

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 8.96 | 95.88 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.64 | 92.46 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.76 | 93.78 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.57 | 91.77 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191865-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-587660/4

Matrix: Water | Lab File ID: 101506.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/19/2023 11:17

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 587660 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 23.7 | | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 24.1 | | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 25.6 | | 1.0 | 0.49 |
| 71-43-2 | Benzene | 24.2 | | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.2 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 26.2 | | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 24.6 | | 1.0 | 0.44 |
| 108-88-3 | Toluene | 23.3 | | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 24.4 | | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 24.8 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 8.40 | | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 50.9 | | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 88 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 96 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101506.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Sep-2023 11:17:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-004
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 19-Sep-2023 15:13:04 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: HE9L Date: 19-Sep-2023 11:45:33

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 5.704 | 5.714 | -0.010 | 98 | 604320 | 10.0 | 10.0 | |
| * 2 Chlorobenzene-d5 | 117 | 8.437 | 8.436 | 0.001 | 91 | 485438 | 10.0 | 10.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 10.709 | 10.708 | 0.001 | 96 | 272920 | 10.0 | 10.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.136 | 5.135 | 0.001 | 93 | 152454 | 9.34 | 9.23 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 5.432 | 5.430 | 0.002 | 96 | 194037 | 9.34 | 8.26 | |
| $ 6 Toluene-d8 (Surr) | 98 | 7.100 | 7.099 | 0.001 | 94 | 570770 | 9.34 | 8.87 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 9.573 | 9.572 | 0.001 | 92 | 253665 | 9.34 | 8.98 | |
| 9 Dichlorodifluoromethane | 85 | 1.633 | 1.632 | 0.001 | 99 | 150252 | 12.5 | 5.80 | |
| 10 Chloromethane | 50 | 1.835 | 1.833 | 0.002 | 100 | 357894 | 12.5 | 9.98 | |
| 11 Vinyl chloride | 62 | 1.941 | 1.940 | 0.001 | 98 | 262122 | 12.5 | 8.40 | |
| 12 Butadiene | 54 | 1.965 | 1.963 | 0.002 | 90 | 285083 | 12.5 | 8.00 | |
| 13 Bromomethane | 94 | 2.284 | 2.283 | 0.001 | 91 | 153484 | 12.5 | 10.3 | |
| 14 Chloroethane | 64 | 2.367 | 2.366 | 0.001 | 97 | 185666 | 12.5 | 10.3 | |
| 15 Dichlorofluoromethane | 67 | 2.592 | 2.602 | -0.010 | 99 | 441261 | 12.5 | 12.2 | |
| 16 Trichlorofluoromethane | 101 | 2.639 | 2.638 | 0.001 | 98 | 262284 | 12.5 | 8.85 | |
| 17 Ethyl ether | 59 | 2.876 | 2.875 | 0.001 | 98 | 419976 | 25.0 | 24.1 | |
| 18 Acrolein | 56 | 3.006 | 3.005 | 0.001 | 99 | 429575 | 125.0 | 482.7 | E |
| 19 1,1-Dichloroethene | 96 | 3.101 | 3.099 | 0.002 | 93 | 387395 | 25.0 | 25.6 | |
| 20 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 3.136 | 3.135 | 0.001 | 97 | 286237 | 25.0 | 22.7 | |
| 21 Acetone | 43 | 3.136 | 3.147 | -0.011 | 99 | 293656 | 50.0 | 50.4 | |
| 22 Iodomethane | 142 | 3.243 | 3.241 | 0.002 | 99 | 706168 | 25.0 | 25.8 | |
| 24 Carbon disulfide | 76 | 3.314 | 3.312 | 0.002 | 99 | 1261124 | 25.0 | 27.4 | |
| 27 Methyl acetate | 43 | 3.432 | 3.431 | 0.001 | 99 | 682233 | 50.0 | 42.5 | |
| 26 3-Chloro-1-propene | 76 | 3.444 | 3.443 | 0.001 | 88 | 284794 | 25.0 | 23.2 | |
| 28 Methylene Chloride | 84 | 3.574 | 3.573 | 0.001 | 96 | 465849 | 25.0 | 25.3 | |
| 29 2-Methyl-2-propanol | 59 | 3.669 | 3.656 | 0.013 | 96 | 415283 | 250.0 | 208.9 | |
| 31 Acrylonitrile | 53 | 3.787 | 3.786 | 0.001 | 98 | 1855292 | 250.0 | 226.2 | |
| 32 Methyl tert-butyl ether | 73 | 3.811 | 3.809 | 0.002 | 99 | 1235789 | 25.0 | 23.1 | |
| 30 trans-1,2-Dichloroethene | 96 | 3.811 | 3.809 | 0.002 | 95 | 455958 | 25.0 | 24.4 | |
| 33 Hexane | 86 | 4.059 | 4.058 | 0.001 | 93 | 83035 | 25.0 | 21.2 | |
| 35 Vinyl acetate | 43 | 4.201 | 4.200 | 0.001 | 97 | 922579 | 25.0 | 27.8 | |
| 34 1,1-Dichloroethane | 63 | 4.213 | 4.212 | 0.001 | 97 | 950257 | 25.0 | 24.1 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 41 2-Butanone (MEK) | 43 | 4.698 | 4.697 | 0.001 | 98 | 392237 | 50.0 | 42.6 | |
| 40 cis-1,2-Dichloroethene | 96 | 4.710 | 4.709 | 0.001 | 89 | 498722 | 25.0 | 25.2 | |
| 39 2,2-Dichloropropane | 97 | 4.722 | 4.721 | 0.002 | 92 | 122706 | 25.0 | 25.4 | |
| 45 Chlorobromomethane | 128 | 4.911 | 4.922 | -0.011 | 92 | 222830 | 25.0 | 23.6 | |
| 46 Tetrahydrofuran | 42 | 4.923 | 4.922 | 0.001 | 94 | 257256 | 50.0 | 44.8 | |
| 47 Chloroform | 83 | 4.994 | 5.004 | -0.010 | 98 | 823772 | 25.0 | 23.5 | |
| 48 1,1,1-Trichloroethane | 97 | 5.148 | 5.146 | 0.002 | 97 | 717104 | 25.0 | 23.7 | |
| 49 Cyclohexane | 56 | 5.207 | 5.206 | 0.001 | 93 | 864223 | 25.0 | 22.4 | |
| 51 Carbon tetrachloride | 117 | 5.278 | 5.277 | 0.001 | 89 | 595728 | 25.0 | 23.1 | |
| 50 1,1-Dichloropropene | 75 | 5.278 | 5.277 | 0.001 | 89 | 590472 | 25.0 | 22.6 | |
| 52 Isobutyl alcohol | 41 | 5.349 | 5.348 | 0.001 | 95 | 345643 | 625.0 | 504.7 | |
| 53 Benzene | 78 | 5.455 | 5.454 | 0.001 | 97 | 1755654 | 25.0 | 24.2 | |
| 54 1,2-Dichloroethane | 62 | 5.503 | 5.501 | 0.002 | 96 | 716819 | 25.0 | 21.5 | |
| 56 n-Heptane | 100 | 5.692 | 5.691 | 0.001 | 96 | 82502 | 25.0 | 22.2 | |
| 58 Trichloroethene | 130 | 6.023 | 6.022 | 0.001 | 96 | 459827 | 25.0 | 24.8 | |
| 60 Methylcyclohexane | 83 | 6.225 | 6.223 | 0.002 | 98 | 580580 | 25.0 | 21.2 | |
| 61 1,2-Dichloropropane | 63 | 6.248 | 6.247 | 0.001 | 92 | 507689 | 25.0 | 23.2 | |
| 64 1,4-Dioxane | 88 | 6.307 | 6.306 | 0.001 | 95 | 68718 | 500.0 | 418.9 | |
| 63 Dibromomethane | 93 | 6.319 | 6.330 | -0.011 | 94 | 268740 | 25.0 | 22.7 | |
| 65 Dichlorobromomethane | 83 | 6.473 | 6.472 | 0.001 | 98 | 603680 | 25.0 | 21.7 | |
| 67 2-Chloroethyl vinyl ether | 63 | 6.710 | 6.708 | 0.002 | 92 | 287346 | 25.0 | 21.5 | |
| 68 cis-1,3-Dichloropropene | 75 | 6.852 | 6.850 | 0.002 | 91 | 674383 | 25.0 | 20.8 | |
| 69 4-Methyl-2-pentanone (MIBK) | 43 | 6.982 | 6.981 | 0.001 | 98 | 909006 | 50.0 | 44.4 | |
| 70 Toluene | 91 | 7.159 | 7.158 | 0.001 | 97 | 1858073 | 25.0 | 23.3 | |
| 71 trans-1,3-Dichloropropene | 75 | 7.361 | 7.359 | 0.002 | 98 | 661359 | 25.0 | 21.6 | |
| 72 Ethyl methacrylate | 69 | 7.396 | 7.395 | 0.001 | 95 | 529511 | 25.0 | 22.0 | |
| 73 1,1,2-Trichloroethane | 97 | 7.550 | 7.549 | 0.001 | 95 | 365387 | 25.0 | 23.4 | |
| 74 Tetrachloroethene | 164 | 7.633 | 7.631 | 0.002 | 98 | 367788 | 25.0 | 24.6 | |
| 75 1,3-Dichloropropane | 76 | 7.692 | 7.702 | -0.010 | 97 | 648361 | 25.0 | 22.5 | |
| 76 2-Hexanone | 43 | 7.727 | 7.726 | 0.001 | 97 | 672375 | 50.0 | 46.3 | |
| 78 Chlorodibromomethane | 129 | 7.893 | 7.892 | 0.001 | 90 | 437299 | 25.0 | 23.3 | |
| 80 Ethylene Dibromide | 107 | 8.011 | 8.010 | 0.001 | 99 | 381648 | 25.0 | 23.4 | |
| 82 Chlorobenzene | 112 | 8.473 | 8.472 | 0.001 | 93 | 1317093 | 25.0 | 26.0 | |
| 83 1,1,1,2-Tetrachloroethane | 131 | 8.544 | 8.542 | 0.002 | 93 | 479915 | 25.0 | 25.2 | |
| 84 Ethylbenzene | 106 | 8.556 | 8.554 | 0.002 | 99 | 739681 | 25.0 | 26.2 | |
| 85 m-Xylene & p-Xylene | 106 | 8.674 | 8.673 | 0.001 | 99 | 907383 | 25.0 | 25.6 | |
| 86 o-Xylene | 106 | 9.041 | 9.051 | -0.010 | 97 | 896244 | 25.0 | 25.3 | |
| 87 Styrene | 104 | 9.064 | 9.063 | 0.001 | 93 | 1535237 | 25.0 | 25.5 | |
| 88 Bromoform | 173 | 9.242 | 9.241 | 0.001 | 97 | 301539 | 25.0 | 22.7 | |
| 89 Isopropylbenzene | 105 | 9.396 | 9.394 | 0.002 | 97 | 2232362 | 25.0 | 25.1 | |
| 92 1,1,2,2-Tetrachloroethane | 83 | 9.692 | 9.690 | 0.002 | 96 | 472328 | 25.0 | 23.7 | |
| 93 Bromobenzene | 156 | 9.715 | 9.714 | 0.001 | 94 | 606642 | 25.0 | 27.0 | |
| 95 trans-1,4-Dichloro-2-butene | 53 | 9.727 | 9.738 | -0.011 | 75 | 205524 | 25.0 | 25.6 | |
| 94 1,2,3-Trichloropropane | 110 | 9.751 | 9.761 | -0.010 | 85 | 154091 | 25.0 | 25.6 | |
| 96 N-Propylbenzene | 120 | 9.798 | 9.809 | -0.011 | 99 | 614727 | 25.0 | 27.2 | |
| 97 2-Chlorotoluene | 126 | 9.893 | 9.903 | -0.010 | 95 | 550361 | 25.0 | 27.1 | |
| 98 1,3,5-Trimethylbenzene | 105 | 9.976 | 9.974 | 0.002 | 93 | 1878617 | 25.0 | 25.8 | |
| 99 4-Chlorotoluene | 126 | 10.023 | 10.022 | 0.001 | 98 | 582079 | 25.0 | 27.2 | |
| 100 tert-Butylbenzene | 119 | 10.295 | 10.294 | 0.001 | 93 | 1530436 | 25.0 | 26.2 | |
| 102 1,2,4-Trimethylbenzene | 105 | 10.354 | 10.353 | 0.001 | 98 | 1911607 | 25.0 | 25.1 | |
| 103 sec-Butylbenzene | 105 | 10.508 | 10.507 | 0.001 | 96 | 2133121 | 25.0 | 24.8 | |
| 104 1,3-Dichlorobenzene | 146 | 10.638 | 10.637 | 0.001 | 98 | 1029416 | 25.0 | 25.0 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 105 4-Isopropyltoluene | 119 | 10.662 | 10.661 | 0.001 | 96 | 1789164 | 25.0 | 24.5 | |
| 106 1,4-Dichlorobenzene | 146 | 10.733 | 10.732 | 0.001 | 92 | 1043261 | 25.0 | 24.8 | |
| 109 n-Butylbenzene | 91 | 11.064 | 11.063 | 0.001 | 98 | 1541558 | 25.0 | 22.6 | |
| 110 1,2-Dichlorobenzene | 146 | 11.100 | 11.098 | 0.002 | 98 | 958331 | 25.0 | 24.4 | |
| 111 1,2-Dibromo-3-Chloropropane | 157 | 11.881 | 11.879 | 0.002 | 86 | 80845 | 25.0 | 19.7 | |
| 113 1,2,4-Trichlorobenzene | 180 | 12.697 | 12.696 | 0.001 | 94 | 651267 | 25.0 | 23.1 | |
| 114 Hexachlorobutadiene | 225 | 12.851 | 12.850 | 0.001 | 97 | 277559 | 25.0 | 23.6 | |
| 115 Naphthalene | 128 | 12.981 | 12.980 | 0.001 | 99 | 1203443 | 25.0 | 22.4 | |
| 116 1,2,3-Trichlorobenzene | 180 | 13.218 | 13.216 | 0.002 | 98 | 525278 | 25.0 | 22.1 | |
| S 156 Total BTEX | 1 | | | | 0 | | 125.0 | 124.7 | |
| S 131 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 91.2 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 51.0 | |

## QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASPW_00509 | Amount Added: | 20.00 | Units: uL | |
| vmfasaw_00482 | Amount Added: | 20.00 | Units: uL | |
| VMFASGW_00525 | Amount Added: | 10.00 | Units: uL | |
| vm50ss_stk_00094 | Amount Added: | 0.93 | Units: uL | Run Reagent |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm50is_stk_A_00021 | Amount Added: | 1.00 | Units: uL | Run Reagent |

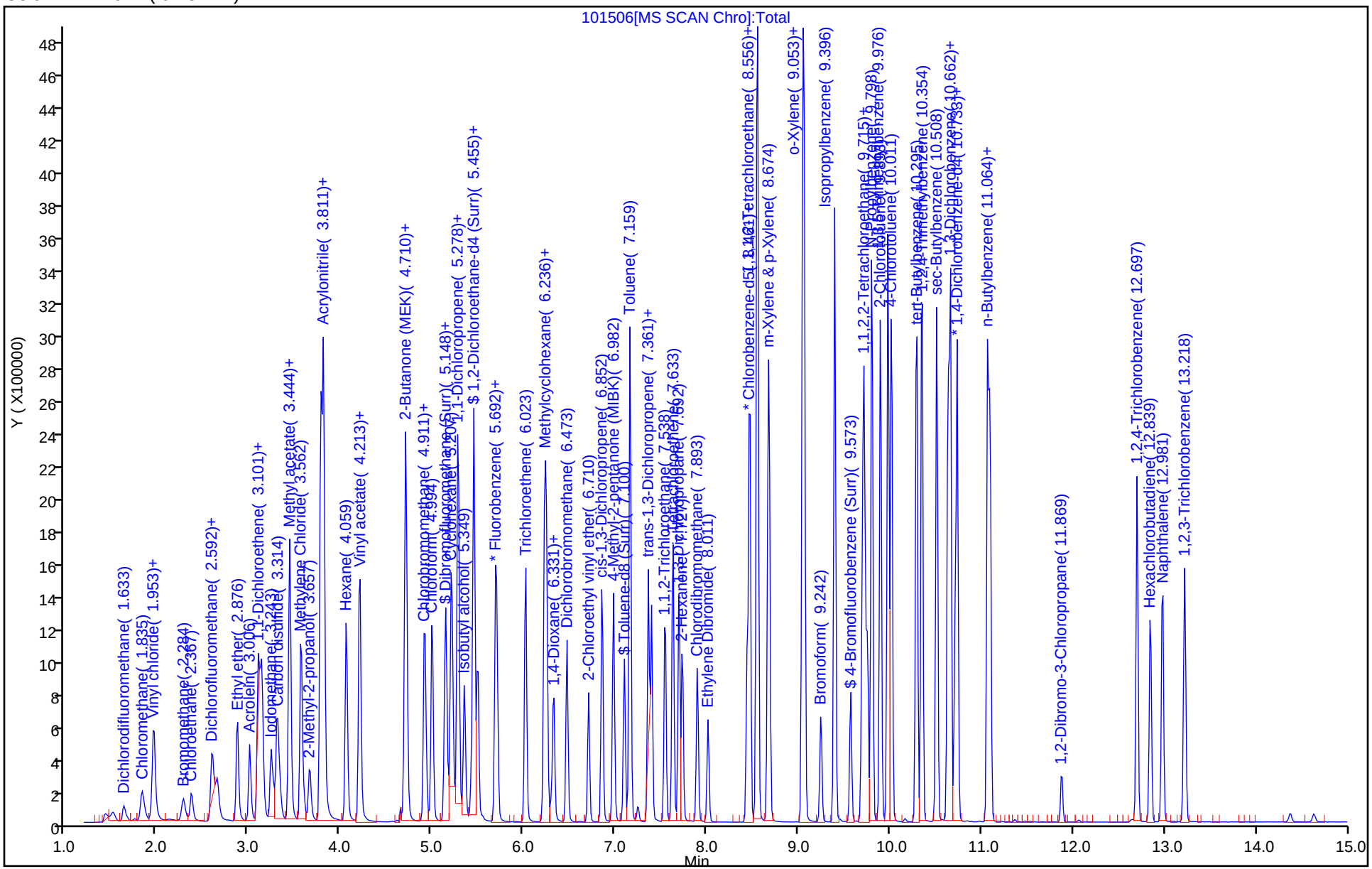
Report Date: 19-Sep-2023 15:13:08 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101506.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 19-Sep-2023 11:17:30 | Instrument ID: | A3UX10 | Operator ID: | 434006 |
| Lims ID: | LCS | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8260_10 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\101506.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Sep-2023 11:17:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133604-004
Operator ID: 434006 Instrument ID: A3UX10

Method: \\chromfs\Canton\ChromData\A3UX10\20230919-133604.b\8260_10.m
Limit Group: MSV 8260C ICAL
Last Update: 19-Sep-2023 15:13:04 Calib Date: 11-Aug-2023 00:27:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX10\20230810-132313.b\10-0622.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1642

First Level Reviewer: HE9L Date: 19-Sep-2023 11:45:33

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 9.34 | 9.23 | 98.79 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 9.34 | 8.26 | 88.43 |
| $ 6 Toluene-d8 (Surr) | 9.34 | 8.87 | 95.02 |
| $ 7 4-Bromofluorobenzene (Surr) | 9.34 | 8.98 | 96.17 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Instrument ID: A3UX10 Start Date: 08/10/2023 14:37

Analysis Batch Number: 583544 End Date: 08/11/2023 02:06

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 240-583544/1 | | 08/10/2023 14:37 | 1 | BFB10059.D | DB-624 0.18(mm) |
| IC 240-583544/3 | | 08/10/2023 15:15 | 1 | 10-0600.D | DB-624 0.18(mm) |
| IC 240-583544/4 | | 08/10/2023 15:41 | 1 | 10-0601.D | DB-624 0.18(mm) |
| IC 240-583544/5 | | 08/10/2023 16:06 | 1 | 10-0602.D | DB-624 0.18(mm) |
| IC 240-583544/6 | | 08/10/2023 16:31 | 1 | 10-0603.D | DB-624 0.18(mm) |
| IC 240-583544/7 | | 08/10/2023 16:56 | 1 | 10-0604.D | DB-624 0.18(mm) |
| ICIS 240-583544/8 | | 08/10/2023 17:21 | 1 | 10-0605.D | DB-624 0.18(mm) |
| IC 240-583544/9 | | 08/10/2023 17:46 | 1 | 10-0606.D | DB-624 0.18(mm) |
| IC 240-583544/10 | | 08/10/2023 18:11 | 1 | 10-0607.D | DB-624 0.18(mm) |
| IC 240-583544/11 | | 08/10/2023 18:36 | 1 | 10-0608.D | DB-624 0.18(mm) |
| ZZZZZ | | 08/10/2023 19:26 | 1 | | DB-624 0.18(mm) |
| ICV 240-583544/14 | | 08/10/2023 19:51 | 1 | 10-0611.D | DB-624 0.18(mm) |
| ZZZZZ | | 08/10/2023 20:16 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/18 | | 08/10/2023 21:07 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/19 | | 08/10/2023 21:32 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/20 | | 08/10/2023 21:57 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/21 | | 08/10/2023 22:22 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/22 | | 08/10/2023 22:47 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/23 | | 08/10/2023 23:12 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/24 | | 08/10/2023 23:37 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/25 | | 08/11/2023 00:02 | 1 | | DB-624 0.18(mm) |
| IC 240-583544/26 | | 08/11/2023 00:27 | 1 | | DB-624 0.18(mm) |
| ICV 240-583544/28 | | 08/11/2023 01:17 | 1 | 10-0624.D | DB-624 0.18(mm) |
| ZZZZZ | | 08/11/2023 02:06 | 1 | | DB-624 0.18(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Cleveland Job No.: 240-191865-1

SDG No.:

Instrument ID: A3UX10 Start Date: 09/19/2023 09:53

Analysis Batch Number: 587660 End Date: 09/19/2023 21:36

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 240-587660/1 | | 09/19/2023 09:53 | 1 | 10087.D | DB-624 0.18(mm) |
| CCV 240-587660/2 | | 09/19/2023 10:27 | 1 | 101504.D | DB-624 0.18(mm) |
| CCVIS 240-587660/3 | | 09/19/2023 10:52 | 1 | 101505.D | DB-624 0.18(mm) |
| LCS 240-587660/4 | | 09/19/2023 11:17 | 1 | 101506.D | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 11:42 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 12:07 | 1 | | DB-624 0.18(mm) |
| MB 240-587660/7 | | 09/19/2023 12:31 | 1 | 101509.D | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 12:56 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 13:21 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 13:46 | 10 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 14:11 | 2 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 14:35 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 15:00 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 15:25 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 15:50 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 16:14 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 16:39 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 17:04 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 17:28 | 1 | | DB-624 0.18(mm) |
| 240-191865-1 | HR-4/091123/ | 09/19/2023 17:53 | 1 | 101522.D | DB-624 0.18(mm) |
| 240-191865-2 | W-2-N/091123/ | 09/19/2023 18:18 | 1 | 101523.D | DB-624 0.18(mm) |
| 240-191865-3 | W-3-N/091123/ | 09/19/2023 18:43 | 1 | 101524.D | DB-624 0.18(mm) |
| 240-191865-4 | W-4-N/091123/ | 09/19/2023 19:07 | 1 | 101525.D | DB-624 0.18(mm) |
| 240-191865-5 | EB-01/091123/ | 09/19/2023 19:32 | 1 | 101526.D | DB-624 0.18(mm) |
| 240-191865-6 | TB-01/091123/ | 09/19/2023 19:56 | 1 | 101527.D | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 20:21 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 20:46 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 21:11 | 10 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/19/2023 21:36 | 10 | | DB-624 0.18(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191865-1

SDG No.:

Batch Number: 583544  Batch Start Date: 08/10/23 14:37  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | vm50is_stk_A 00019 | vm50ss_stk 00094 | VMAROLISTDW 00496 | vmbfb 00032 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-583544/1 | | 8260D | | 5 mL | 5 mL | | | | 1 uL |
| IC 240-583544/3 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 0.4 uL | |
| IC 240-583544/4 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 0.8 uL | |
| IC 240-583544/5 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 2 uL | |
| IC 240-583544/6 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 5 uL | |
| IC 240-583544/7 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 10 uL | |
| ICIS 240-583544/8 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 20 uL | |
| IC 240-583544/9 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 30 uL | |
| IC 240-583544/10 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 40 uL | |
| IC 240-583544/11 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | 50 uL | |
| ICV 240-583544/14 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | | |
| ICV 240-583544/28 | | 8260D | | 5 mL | 5 mL | 1 uL | 0.934 uL | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMFASA9W 00416 | VMFASAW 00475 | VMFASGW 00520 | VMFASPW 00504 | VMRGAS 00488 | VMRPRIMW 00543 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-583544/1 | | 8260D | | | | | | | |
| IC 240-583544/3 | | 8260D | | | | | | 0.4 uL | 0.4 uL |
| IC 240-583544/4 | | 8260D | | | | | | 0.8 uL | 0.8 uL |
| IC 240-583544/5 | | 8260D | | | | | | 2 uL | 2 uL |
| IC 240-583544/6 | | 8260D | | | | | | 5 uL | 5 uL |
| IC 240-583544/7 | | 8260D | | | | | | 10 uL | 10 uL |
| ICIS 240-583544/8 | | 8260D | | | | | | 20 uL | 20 uL |
| IC 240-583544/9 | | 8260D | | | | | | 30 uL | 30 uL |
| IC 240-583544/10 | | 8260D | | | | | | 40 uL | 40 uL |
| IC 240-583544/11 | | 8260D | | | | | | 50 uL | 50 uL |
| ICV 240-583544/14 | | 8260D | | | 20 uL | 10 uL | 20 uL | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191865-1

SDG No.:

Batch Number: 583544  Batch Start Date: 08/10/23 14:37  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMFASA9W 00416 | VMFASAW 00475 | VMFASGW 00520 | VMFASPW 00504 | VMRGAS 00488 | VMRPRIMW 00543 |
|---|---|---|---|---|---|---|---|---|---|
| ICV 240-583544/28 | | 8260D | | 20 uL | | | | | |

| Batch Notes | |
|---|---|
| pH Indicator ID | HC312502 |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191865-1

SDG No.:

Batch Number: 587660  Batch Start Date: 09/19/23 09:53  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | vm50is_stk_A 00020 | vm50is_stk_A 00021 | vm50ss_stk 00094 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-587660/1 | | 8260D | | 5 mL | 5 mL | | | | |
| CCV 240-587660/2 | | 8260D | | 5 mL | 5 mL | | 1 uL | | |
| CCVIS 240-587660/3 | | 8260D | | 5 mL | 5 mL | | | 1 uL | 0.934 uL |
| LCS 240-587660/4 | | 8260D | | 5 mL | 5 mL | | | 1 uL | 0.934 uL |
| MB 240-587660/7 | | 8260D | | 5 mL | 5 mL | | | 1 uL | 0.934 uL |
| 240-191865-A-1 | HR-4/091123/ | 8260D | T | 5 mL | 5 mL | <2 SU | | 1 uL | 0.934 uL |
| 240-191865-A-2 | W-2-N/091123 | 8260D | T | 5 mL | 5 mL | <2 SU | | 1 uL | 0.934 uL |
| 240-191865-B-3 | W-3-N/091123 | 8260D | T | 5 mL | 5 mL | <2 SU | | 1 uL | 0.934 uL |
| 240-191865-A-4 | W-4-N/091123 | 8260D | T | 5 mL | 5 mL | <2 SU | | 1 uL | 0.934 uL |
| 240-191865-C-5 | EB-01/091123 | 8260D | T | 5 mL | 5 mL | <2 SU | | 1 uL | 0.934 uL |
| 240-191865-B-6 | TB-01/091123 | 8260D | T | 5 mL | 5 mL | <2 SU | | 1 uL | 0.934 uL |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | vmarolistdw 00502 | vmbfb 00032 | vmfasaw 00482 | VMFASGW 00525 | VMFASPW 00509 | vmra9w 00497 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-587660/1 | | 8260D | | | 1 uL | | | | |
| CCV 240-587660/2 | | 8260D | | | | | | | 20 uL |
| CCVIS 240-587660/3 | | 8260D | | 20 uL | | | | | |
| LCS 240-587660/4 | | 8260D | | | | 20 uL | 10 uL | 20 uL | |
| MB 240-587660/7 | | 8260D | | | | | | | |
| 240-191865-A-1 | HR-4/091123/ | 8260D | T | | | | | | |
| 240-191865-A-2 | W-2-N/091123 | 8260D | T | | | | | | |
| 240-191865-B-3 | W-3-N/091123 | 8260D | T | | | | | | |
| 240-191865-A-4 | W-4-N/091123 | 8260D | T | | | | | | |
| 240-191865-C-5 | EB-01/091123 | 8260D | T | | | | | | |
| 240-191865-B-6 | TB-01/091123 | 8260D | T | | | | | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | vmrgas 00494 | VMRPRIMW 00548 | | | | |
|---|---|---|---|---|---|---|---|---|---|

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191865-1

SDG No.:

Batch Number: 587660  Batch Start Date: 09/19/23 09:53  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | vmrgas 00494 | VMRPRIMW 00548 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-587660/1 | | 8260D | | | | | | | |
| CCV 240-587660/2 | | 8260D | | | | | | | |
| CCVIS 240-587660/3 | | 8260D | | 20 uL | 20 uL | | | | |
| LCS 240-587660/4 | | 8260D | | | | | | | |
| MB 240-587660/7 | | 8260D | | | | | | | |
| 240-191865-A-1 | HR-4/091123/ | 8260D | T | | | | | | |
| 240-191865-A-2 | W-2-N/091123 | 8260D | T | | | | | | |
| 240-191865-B-3 | W-3-N/091123 | 8260D | T | | | | | | |
| 240-191865-A-4 | W-4-N/091123 | 8260D | T | | | | | | |
| 240-191865-C-5 | EB-01/091123 | 8260D | T | | | | | | |
| 240-191865-B-6 | TB-01/091123 | 8260D | T | | | | | | |

| Batch Notes | |
|---|---|
| pH Indicator ID | HC312502 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**Eurofins Cleveland**
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

# Chain of Custody Record

6.4/0.2 Columbus 209

eurofins

Environment Testing

| Client Information | Sampler: Luke Holben | Lab PM: DelMonico, Michael | Carrier Tracking No(s): | COC No: 240-111715-39788.1 |
|---|---|---|---|---|
| Client Contact: Kari Eldridge | Phone: 419-704-3859 | E-Mail: Michael.DelMonico@et.eurofinsus.com | State of Origin: OH | Page: LH Page ~~1 of 4~~ 1 of 1 |
| Company: ARCADIS U.S., Inc | PWSID: | | | Job #: |
| Address: 4665 Cornell Road Suite 200 | Due Date Requested: | | | |
| City: Cincinnati | TAT Requested (days): Standard | | | |
| State, Zip: OH, 45241 | Compliance Project: Δ Yes Δ No | | | |
| Phone: | PO #: LH ~~30173252.0003E.3~~ 30173252.0004B | | | |
| Email: kari.eldridge@arcadis.com | WO #: | | | |
| Project Name: Racer Moraine Annual | Project #: 24006917 | | | |
| Site: Racer Moraine OH | SSOW#: | | | |

**Analysis Requested**

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other:

| Sample Identification | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - VOCs- 12 site compound list | 9060A - Local Method | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | A | S | | |
| North Lagoon Wells | | | | | | | | | | |
| HR-4/091123/ | 9.11.23 | 12:35 | G | Water | N | N | X | | 3 | |
| W-2-N/091123/ | 9.11.23 | 10:40 | G | Water | N | N | X | | 3 | |
| W-3-N/091123/ | 9.11.23 | 16:45 | G | Water | N | N | X | | 3 | |
| W-4-N/091123/ | 9.11.23 | 14:35 | G | Water | N | N | X | | 3 | |
| EB-01/091123/ | 9.11.23 | 17:30 | G | Water | N | N | X | | 3 | |
| TB-01/091123/ | 9.11.23 | — | G | Water | N | N | X | | 2 | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |

240-191865 Chain of Custody

*Possible Hazard Identification*
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

*Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)*
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Level IV

Special Instructions/QC Requirements:

| Empty Kit Relinquished by | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|---|
| 1 | Luke Holben | 9/15/23 1800 | Arcadis | [illegible] Yoon | 9.16.23 9:25 | [illegible] |
| 2 | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
| 3 | Relinquished by | Date/Time | Company | Received by | Date/Time | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021



02/07/2024

**Eurofins – Cleveland Sample Receipt Form/Narrative** **Login # :** _____
**Barberton Facility**

Client ARCADIS Site Name _____ Cooler unpacked by: M. Lloca

Cooler Received on 9-16-23 Opened on 9-16-23

FedEx: 1st Grd Exp UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

**Receipt After-hours:** Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 1 Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF 0.2 °C) Observed Cooler Temp. 0.4 °C Corrected Cooler Temp. 0.2 °C

| | | |
|---|---|---|
| 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity_____ | Yes | No |
| -Were the seals on the outside of the cooler(s) signed & dated? | Yes | No NA |
| -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? | Yes | No |
| -Were tamper/custody seals intact and uncompromised? | Yes | No NA |
| 3. Shippers' packing slip attached to the cooler(s)? | Yes | No |
| 4. Did custody papers accompany the sample(s)? | Yes | No |
| 5. Were the custody papers relinquished & signed in the appropriate place? | Yes | No |
| 6. Was/were the person(s) who collected the samples clearly identified on the COC? | Yes | No |
| 7. Did all bottles arrive in good condition (Unbroken)? | Yes | No |
| 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? | Yes | No |
| 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp(Y/N)? | | |
| 10. Were correct bottle(s) used for the test(s) indicated? | Yes | No |
| 11. Sufficient quantity received to perform indicated analyses? | Yes | No |
| 12. Are these work share samples and all listed on the COC? | Yes | No |
| If yes, Questions 13-17 have been checked at the originating laboratory. | | |
| 13. Were all preserved sample(s) at the correct pH upon receipt? | Yes | No NA pH Strip Lot# HC312501 |
| 14. Were VOAs on the COC? | Yes | No |
| 15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. | Yes | No NA |
| 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____ | Yes | No |
| 17. Was a LL Hg or Me Hg trip blank present? _____ | Yes | No |

**Tests that are not checked for pH by Receiving:**

**VOAs**
**Oil and Grease**
**TOC**

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** ☐ additional next page

Samples processed by:

_____

_____

_____

_____

**19. SAMPLE CONDITION**

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

**20. SAMPLE PRESERVATION**

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

eurofins | Environment Testing

# ANALYTICAL REPORT

## PREPARED FOR

Attn: Carolyn Grogan
ARCADIS US Inc
7575 Huntington Park Drive
Suite 130
Columbus OH 43235

Generated 9/26/2023 2:04 PM

## JOB DESCRIPTION

Racer Moraine Annual

## JOB NUMBER

240-191867-1

Eurofins Cleveland
180 S. Van Buren Avenue
Barberton OH 44203

See page two for job notes and contact information.



my EOL

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

## Authorization

Generated
9/26/2023 2:04 PM

Authorized for release by
Michael DelMonico, Project Manager I
Michael.DelMonico@et.eurofinsus.com
330 497-9396

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## Qualifiers

### GC/MS VOA

| Qualifier | Qualifier Description |
|---|---|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| U | Indicates the analyte was analyzed for but not detected. |

## Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|---|---|
| ¤ | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

**Job Narrative**
**240-191867-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

**Receipt**
The samples were received on 9/16/2023 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.2°C

**GC/MS VOA**
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

# Detection Summary

Client: ARCADIS US Inc
Job ID: 240-191867-1
Project/Site: Racer Moraine Annual

## Client Sample ID: W-2-S/091223/ — Lab Sample ID: 240-191867-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.70 | J | 1.0 | 0.48 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 1.1 | | 1.0 | 0.46 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 12 | | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 6.3 | | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: W-4-S/091223/ — Lab Sample ID: 240-191867-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | | 1.0 | 0.48 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 22 | | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 1.0 | | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: W-3-S/091223/ — Lab Sample ID: 240-191867-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 150 | | 5.0 | 2.2 | ug/L | 5 | | 8260D | Total/NA |

## Client Sample ID: HR-17/091223/ — Lab Sample ID: 240-191867-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| Tetrachloroethene | 200 | | 5.0 | 2.2 | ug/L | 5 | | 8260D | Total/NA |

## Client Sample ID: DUP-01/091223/ — Lab Sample ID: 240-191867-5

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | | 1.0 | 0.48 | ug/L | 1 | | 8260D | Total/NA |
| cis-1,2-Dichloroethene | 1.3 | | 1.0 | 0.46 | ug/L | 1 | | 8260D | Total/NA |
| Tetrachloroethene | 11 | | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |
| Trichloroethene | 6.0 | | 1.0 | 0.44 | ug/L | 1 | | 8260D | Total/NA |

## Client Sample ID: EB-02/091223/ — Lab Sample ID: 240-191867-6

No Detections.

This Detection Summary does not include radiochemical test results.

## Client Sample ID: W-2-S/091223/
**Lab Sample ID: 240-191867-1**

**Date Collected: 09/12/23 11:10**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **0.70** | **J** | 1.0 | 0.48 | ug/L | | | 09/22/23 16:14 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 16:14 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 16:14 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 16:14 | 1 |
| **cis-1,2-Dichloroethene** | **1.1** | | 1.0 | 0.46 | ug/L | | | 09/22/23 16:14 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 16:14 | 1 |
| **Tetrachloroethene** | **12** | | 1.0 | 0.44 | ug/L | | | 09/22/23 16:14 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 16:14 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 16:14 | 1 |
| **Trichloroethene** | **6.3** | | 1.0 | 0.44 | ug/L | | | 09/22/23 16:14 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 16:14 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 16:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/22/23 16:14* | *1* |
| *4-Bromofluorobenzene (Surr)* | *84* | | *56 - 136* | | *09/22/23 16:14* | *1* |
| *Toluene-d8 (Surr)* | *92* | | *78 - 122* | | *09/22/23 16:14* | *1* |
| *Dibromofluoromethane (Surr)* | *104* | | *73 - 120* | | *09/22/23 16:14* | *1* |

## Client Sample ID: W-4-S/091223/
**Lab Sample ID: 240-191867-2**

**Date Collected: 09/12/23 12:40**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **1.0** | | 1.0 | 0.48 | ug/L | | | 09/22/23 17:24 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 17:24 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 17:24 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 17:24 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/22/23 17:24 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 17:24 | 1 |
| **Tetrachloroethene** | **22** | | 1.0 | 0.44 | ug/L | | | 09/22/23 17:24 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 17:24 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 17:24 | 1 |
| **Trichloroethene** | **1.0** | | 1.0 | 0.44 | ug/L | | | 09/22/23 17:24 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 17:24 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 17:24 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *92* | | *62 - 137* | | *09/22/23 17:24* | *1* |
| *4-Bromofluorobenzene (Surr)* | *84* | | *56 - 136* | | *09/22/23 17:24* | *1* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* | | *09/22/23 17:24* | *1* |
| *Dibromofluoromethane (Surr)* | *96* | | *73 - 120* | | *09/22/23 17:24* | *1* |

## Client Sample ID: W-3-S/091223/
**Lab Sample ID: 240-191867-3**

**Date Collected: 09/12/23 14:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 17:48 | 5 |

## Client Sample ID: W-3-S/091223/
**Lab Sample ID: 240-191867-3**

**Date Collected: 09/12/23 14:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 17:48 | 5 |
| 1,1-Dichloroethene | 5.0 | U | 5.0 | 2.5 | ug/L | | | 09/22/23 17:48 | 5 |
| Benzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 17:48 | 5 |
| cis-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 17:48 | 5 |
| Ethylbenzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 17:48 | 5 |
| **Tetrachloroethene** | **150** | | 5.0 | 2.2 | ug/L | | | 09/22/23 17:48 | 5 |
| Toluene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 17:48 | 5 |
| trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.6 | ug/L | | | 09/22/23 17:48 | 5 |
| Trichloroethene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 17:48 | 5 |
| Vinyl chloride | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 17:48 | 5 |
| Xylenes, Total | 10 | U | 10 | 2.1 | ug/L | | | 09/22/23 17:48 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *94* | | *62 - 137* | | *09/22/23 17:48* | *5* |
| *4-Bromofluorobenzene (Surr)* | *86* | | *56 - 136* | | *09/22/23 17:48* | *5* |
| *Toluene-d8 (Surr)* | *93* | | *78 - 122* | | *09/22/23 17:48* | *5* |
| *Dibromofluoromethane (Surr)* | *100* | | *73 - 120* | | *09/22/23 17:48* | *5* |

## Client Sample ID: HR-17/091223/
**Lab Sample ID: 240-191867-4**

**Date Collected: 09/12/23 15:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 18:12 | 5 |
| 1,1-Dichloroethane | 5.0 | U | 5.0 | 2.4 | ug/L | | | 09/22/23 18:12 | 5 |
| 1,1-Dichloroethene | 5.0 | U | 5.0 | 2.5 | ug/L | | | 09/22/23 18:12 | 5 |
| Benzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 18:12 | 5 |
| cis-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 18:12 | 5 |
| Ethylbenzene | 5.0 | U | 5.0 | 2.1 | ug/L | | | 09/22/23 18:12 | 5 |
| **Tetrachloroethene** | **200** | | 5.0 | 2.2 | ug/L | | | 09/22/23 18:12 | 5 |
| Toluene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 18:12 | 5 |
| trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.6 | ug/L | | | 09/22/23 18:12 | 5 |
| Trichloroethene | 5.0 | U | 5.0 | 2.2 | ug/L | | | 09/22/23 18:12 | 5 |
| Vinyl chloride | 5.0 | U | 5.0 | 2.3 | ug/L | | | 09/22/23 18:12 | 5 |
| Xylenes, Total | 10 | U | 10 | 2.1 | ug/L | | | 09/22/23 18:12 | 5 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *89* | | *62 - 137* | | *09/22/23 18:12* | *5* |
| *4-Bromofluorobenzene (Surr)* | *82* | | *56 - 136* | | *09/22/23 18:12* | *5* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* | | *09/22/23 18:12* | *5* |
| *Dibromofluoromethane (Surr)* | *99* | | *73 - 120* | | *09/22/23 18:12* | *5* |

## Client Sample ID: DUP-01/091223/
**Lab Sample ID: 240-191867-5**

**Date Collected: 09/12/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **1.0** | | 1.0 | 0.48 | ug/L | | | 09/22/23 18:35 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 18:35 | 1 |

## Client Sample ID: DUP-01/091223/
**Lab Sample ID: 240-191867-5**

**Date Collected: 09/12/23 00:00**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 18:35 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:35 | 1 |
| **cis-1,2-Dichloroethene** | **1.3** | | 1.0 | 0.46 | ug/L | | | 09/22/23 18:35 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:35 | 1 |
| **Tetrachloroethene** | **11** | | 1.0 | 0.44 | ug/L | | | 09/22/23 18:35 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:35 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 18:35 | 1 |
| **Trichloroethene** | **6.0** | | 1.0 | 0.44 | ug/L | | | 09/22/23 18:35 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 18:35 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 18:35 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *100* | | *62 - 137* | | *09/22/23 18:35* | *1* |
| *4-Bromofluorobenzene (Surr)* | *88* | | *56 - 136* | | *09/22/23 18:35* | *1* |
| *Toluene-d8 (Surr)* | *89* | | *78 - 122* | | *09/22/23 18:35* | *1* |
| *Dibromofluoromethane (Surr)* | *104* | | *73 - 120* | | *09/22/23 18:35* | *1* |

## Client Sample ID: EB-02/091223/
**Lab Sample ID: 240-191867-6**

**Date Collected: 09/12/23 17:30**
**Matrix: Water**
**Date Received: 09/16/23 09:25**

### Method: SW846 8260D - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/22/23 18:58 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 18:58 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 18:58 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:58 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/22/23 18:58 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 18:58 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:58 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:58 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 18:58 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 18:58 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 18:58 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 18:58 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *62 - 137* | | *09/22/23 18:58* | *1* |
| *4-Bromofluorobenzene (Surr)* | *85* | | *56 - 136* | | *09/22/23 18:58* | *1* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* | | *09/22/23 18:58* | *1* |
| *Dibromofluoromethane (Surr)* | *108* | | *73 - 120* | | *09/22/23 18:58* | *1* |

# Default Detection Limits

Client: ARCADIS US Inc
Job ID: 240-191867-1
Project/Site: Racer Moraine Annual

## Method: 8260D - Volatile Organic Compounds by GC/MS

| Analyte | RL | MDL | Units |
|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | 0.48 | ug/L |
| 1,1-Dichloroethane | 1.0 | 0.47 | ug/L |
| 1,1-Dichloroethene | 1.0 | 0.49 | ug/L |
| Benzene | 1.0 | 0.42 | ug/L |
| cis-1,2-Dichloroethene | 1.0 | 0.46 | ug/L |
| Ethylbenzene | 1.0 | 0.42 | ug/L |
| Tetrachloroethene | 1.0 | 0.44 | ug/L |
| Toluene | 1.0 | 0.44 | ug/L |
| trans-1,2-Dichloroethene | 1.0 | 0.51 | ug/L |
| Trichloroethene | 1.0 | 0.44 | ug/L |
| Vinyl chloride | 1.0 | 0.45 | ug/L |
| Xylenes, Total | 2.0 | 0.42 | ug/L |

# Surrogate Summary

Client: ARCADIS US Inc
Project/Site: Racer Moraine Annual

Job ID: 240-191867-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Matrix: Water**

**Prep Type: Total/NA**

| | | Percent Surrogate Recovery (Acceptance Limits) | | | |
|---|---|---|---|---|---|
| | | DCA | BFB | TOL | DBFM |
| Lab Sample ID | Client Sample ID | (62-137) | (56-136) | (78-122) | (73-120) |
| 240-191867-1 | W-2-S/091223/ | 95 | 84 | 92 | 104 |
| 240-191867-1 MS | W-2-S/091223/ | 90 | 88 | 95 | 101 |
| 240-191867-1 MSD | W-2-S/091223/ | 86 | 88 | 91 | 103 |
| 240-191867-2 | W-4-S/091223/ | 92 | 84 | 94 | 96 |
| 240-191867-3 | W-3-S/091223/ | 94 | 86 | 93 | 100 |
| 240-191867-4 | HR-17/091223/ | 89 | 82 | 95 | 99 |
| 240-191867-5 | DUP-01/091223/ | 100 | 88 | 89 | 104 |
| 240-191867-6 | EB-02/091223/ | 102 | 85 | 95 | 108 |
| LCS 240-588192/4 | Lab Control Sample | 93 | 84 | 94 | 102 |
| MB 240-588192/7 | Method Blank | 95 | 84 | 97 | 95 |

**Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 240-588192/7**
**Matrix: Water**
**Analysis Batch: 588192**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 | ug/L | | | 09/22/23 11:34 | 1 |
| 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 | ug/L | | | 09/22/23 11:34 | 1 |
| 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 | ug/L | | | 09/22/23 11:34 | 1 |
| Benzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 11:34 | 1 |
| cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 | ug/L | | | 09/22/23 11:34 | 1 |
| Ethylbenzene | 1.0 | U | 1.0 | 0.42 | ug/L | | | 09/22/23 11:34 | 1 |
| Tetrachloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 11:34 | 1 |
| Toluene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 11:34 | 1 |
| trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 | ug/L | | | 09/22/23 11:34 | 1 |
| Trichloroethene | 1.0 | U | 1.0 | 0.44 | ug/L | | | 09/22/23 11:34 | 1 |
| Vinyl chloride | 1.0 | U | 1.0 | 0.45 | ug/L | | | 09/22/23 11:34 | 1 |
| Xylenes, Total | 2.0 | U | 2.0 | 0.42 | ug/L | | | 09/22/23 11:34 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *95* | | *62 - 137* | | *09/22/23 11:34* | *1* |
| *4-Bromofluorobenzene (Surr)* | *84* | | *56 - 136* | | *09/22/23 11:34* | *1* |
| *Toluene-d8 (Surr)* | *97* | | *78 - 122* | | *09/22/23 11:34* | *1* |
| *Dibromofluoromethane (Surr)* | *95* | | *73 - 120* | | *09/22/23 11:34* | *1* |

**Lab Sample ID: LCS 240-588192/4**
**Matrix: Water**
**Analysis Batch: 588192**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | | | 25.0 | 25.2 | | ug/L | | 101 | 64 - 131 | | |
| 1,1-Dichloroethane | | | 25.0 | 26.1 | | ug/L | | 105 | 72 - 127 | | |
| 1,1-Dichloroethene | | | 25.0 | 27.4 | | ug/L | | 109 | 63 - 134 | | |
| Benzene | | | 25.0 | 27.2 | | ug/L | | 109 | 77 - 123 | | |
| cis-1,2-Dichloroethene | | | 25.0 | 26.1 | | ug/L | | 105 | 77 - 123 | | |
| Ethylbenzene | | | 25.0 | 26.7 | | ug/L | | 107 | 80 - 121 | | |
| m-Xylene & p-Xylene | | | 25.0 | 27.2 | | ug/L | | 109 | 80 - 120 | | |
| o-Xylene | | | 25.0 | 26.4 | | ug/L | | 105 | 80 - 123 | | |
| Tetrachloroethene | | | 25.0 | 27.6 | | ug/L | | 110 | 76 - 123 | | |
| Toluene | | | 25.0 | 25.5 | | ug/L | | 102 | 80 - 123 | | |
| trans-1,2-Dichloroethene | | | 25.0 | 26.6 | | ug/L | | 107 | 75 - 124 | | |
| Trichloroethene | | | 25.0 | 30.5 | | ug/L | | 122 | 70 - 122 | | |
| Vinyl chloride | | | 12.5 | 11.7 | | ug/L | | 94 | 60 - 144 | | |
| Xylenes, Total | | | 50.0 | 53.6 | | ug/L | | 107 | 80 - 121 | | |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *93* | | *62 - 137* |
| *4-Bromofluorobenzene (Surr)* | *84* | | *56 - 136* |
| *Toluene-d8 (Surr)* | *94* | | *78 - 122* |
| *Dibromofluoromethane (Surr)* | *102* | | *73 - 120* |

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 240-191867-1 MS**
**Matrix: Water**
**Analysis Batch: 588192**

**Client Sample ID: W-2-S/091223/**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.70 | J | 25.0 | 24.3 | | ug/L | | 95 | 60 - 130 |
| 1,1-Dichloroethane | 1.0 | U | 25.0 | 22.8 | | ug/L | | 91 | 68 - 125 |
| 1,1-Dichloroethene | 1.0 | U | 25.0 | 26.3 | | ug/L | | 105 | 56 - 135 |
| Benzene | 1.0 | U | 25.0 | 25.1 | | ug/L | | 101 | 64 - 128 |
| cis-1,2-Dichloroethene | 1.1 | | 25.0 | 25.5 | | ug/L | | 98 | 66 - 128 |
| Ethylbenzene | 1.0 | U | 25.0 | 26.0 | | ug/L | | 104 | 67 - 127 |
| m-Xylene & p-Xylene | 2.0 | U | 25.0 | 24.4 | | ug/L | | 98 | 71 - 123 |
| o-Xylene | 1.0 | U | 25.0 | 24.5 | | ug/L | | 98 | 70 - 125 |
| Tetrachloroethene | 12 | | 25.0 | 41.5 | | ug/L | | 119 | 62 - 131 |
| Toluene | 1.0 | U | 25.0 | 24.1 | | ug/L | | 97 | 58 - 135 |
| trans-1,2-Dichloroethene | 1.0 | U | 25.0 | 24.6 | | ug/L | | 98 | 56 - 136 |
| Trichloroethene | 6.3 | | 25.0 | 35.0 | | ug/L | | 115 | 61 - 124 |
| Vinyl chloride | 1.0 | U | 12.5 | 11.5 | | ug/L | | 92 | 43 - 157 |
| Xylenes, Total | 2.0 | U | 50.0 | 48.9 | | ug/L | | 98 | 71 - 123 |

| *Surrogate* | *MS %Recovery* | *MS Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *90* | | *62 - 137* |
| *4-Bromofluorobenzene (Surr)* | *88* | | *56 - 136* |
| *Toluene-d8 (Surr)* | *95* | | *78 - 122* |
| *Dibromofluoromethane (Surr)* | *101* | | *73 - 120* |

**Lab Sample ID: 240-191867-1 MSD**
**Matrix: Water**
**Analysis Batch: 588192**

**Client Sample ID: W-2-S/091223/**
**Prep Type: Total/NA**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 0.70 | J | 25.0 | 23.1 | | ug/L | | 89 | 60 - 130 | 5 | 17 |
| 1,1-Dichloroethane | 1.0 | U | 25.0 | 22.7 | | ug/L | | 91 | 68 - 125 | 1 | 13 |
| 1,1-Dichloroethene | 1.0 | U | 25.0 | 24.3 | | ug/L | | 97 | 56 - 135 | 8 | 26 |
| Benzene | 1.0 | U | 25.0 | 23.9 | | ug/L | | 96 | 64 - 128 | 5 | 14 |
| cis-1,2-Dichloroethene | 1.1 | | 25.0 | 23.5 | | ug/L | | 90 | 66 - 128 | 8 | 14 |
| Ethylbenzene | 1.0 | U | 25.0 | 26.0 | | ug/L | | 104 | 67 - 127 | 0 | 15 |
| m-Xylene & p-Xylene | 2.0 | U | 25.0 | 24.4 | | ug/L | | 98 | 71 - 123 | 0 | 16 |
| o-Xylene | 1.0 | U | 25.0 | 24.3 | | ug/L | | 97 | 70 - 125 | 1 | 15 |
| Tetrachloroethene | 12 | | 25.0 | 38.9 | | ug/L | | 108 | 62 - 131 | 7 | 20 |
| Toluene | 1.0 | U | 25.0 | 23.2 | | ug/L | | 93 | 58 - 135 | 4 | 14 |
| trans-1,2-Dichloroethene | 1.0 | U | 25.0 | 23.3 | | ug/L | | 93 | 56 - 136 | 5 | 15 |
| Trichloroethene | 6.3 | | 25.0 | 31.7 | | ug/L | | 102 | 61 - 124 | 10 | 15 |
| Vinyl chloride | 1.0 | U | 12.5 | 11.1 | | ug/L | | 89 | 43 - 157 | 4 | 24 |
| Xylenes, Total | 2.0 | U | 50.0 | 48.7 | | ug/L | | 97 | 71 - 123 | 0 | 15 |

| *Surrogate* | *MSD %Recovery* | *MSD Qualifier* | *Limits* |
|---|---|---|---|
| *1,2-Dichloroethane-d4 (Surr)* | *86* | | *62 - 137* |
| *4-Bromofluorobenzene (Surr)* | *88* | | *56 - 136* |
| *Toluene-d8 (Surr)* | *91* | | *78 - 122* |
| *Dibromofluoromethane (Surr)* | *103* | | *73 - 120* |

# QC Association Summary

Client: ARCADIS US Inc
Job ID: 240-191867-1
Project/Site: Racer Moraine Annual

## GC/MS VOA

### Analysis Batch: 588192

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 240-191867-1 | W-2-S/091223/ | Total/NA | Water | 8260D | |
| 240-191867-2 | W-4-S/091223/ | Total/NA | Water | 8260D | |
| 240-191867-3 | W-3-S/091223/ | Total/NA | Water | 8260D | |
| 240-191867-4 | HR-17/091223/ | Total/NA | Water | 8260D | |
| 240-191867-5 | DUP-01/091223/ | Total/NA | Water | 8260D | |
| 240-191867-6 | EB-02/091223/ | Total/NA | Water | 8260D | |
| MB 240-588192/7 | Method Blank | Total/NA | Water | 8260D | |
| LCS 240-588192/4 | Lab Control Sample | Total/NA | Water | 8260D | |
| 240-191867-1 MS | W-2-S/091223/ | Total/NA | Water | 8260D | |
| 240-191867-1 MSD | W-2-S/091223/ | Total/NA | Water | 8260D | |

# Lab Chronicle

Client: ARCADIS US Inc
Job ID: 240-191867-1
Project/Site: Racer Moraine Annual

## Client Sample ID: W-2-S/091223/ — Lab Sample ID: 240-191867-1

**Date Collected: 09/12/23 11:10** — **Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 588192 | LEE | EET CLE | 09/22/23 16:14 |

## Client Sample ID: W-4-S/091223/ — Lab Sample ID: 240-191867-2

**Date Collected: 09/12/23 12:40** — **Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 588192 | LEE | EET CLE | 09/22/23 17:24 |

## Client Sample ID: W-3-S/091223/ — Lab Sample ID: 240-191867-3

**Date Collected: 09/12/23 14:00** — **Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 5 | 588192 | LEE | EET CLE | 09/22/23 17:48 |

## Client Sample ID: HR-17/091223/ — Lab Sample ID: 240-191867-4

**Date Collected: 09/12/23 15:30** — **Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 5 | 588192 | LEE | EET CLE | 09/22/23 18:12 |

## Client Sample ID: DUP-01/091223/ — Lab Sample ID: 240-191867-5

**Date Collected: 09/12/23 00:00** — **Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 588192 | LEE | EET CLE | 09/22/23 18:35 |

## Client Sample ID: EB-02/091223/ — Lab Sample ID: 240-191867-6

**Date Collected: 09/12/23 17:30** — **Matrix: Water**
**Date Received: 09/16/23 09:25**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 8260D | | 1 | 588192 | LEE | EET CLE | 09/22/23 18:58 |

**Laboratory References:**

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

# Accreditation/Certification Summary

Client: ARCADIS US Inc
Job ID: 240-191867-1
Project/Site: Racer Moraine Annual

## Laboratory: Eurofins Cleveland

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority | Program | Identification Number | Expiration Date |
|---|---|---|---|
| California | State | 2927 | 02-27-24 |
| Georgia | State | 4062 | 02-27-24 |
| Illinois | NELAP | 200004 | 07-31-24 |
| Iowa | State | 421 | 06-01-25 |
| Kentucky (UST) | State | 112225 | 02-28-24 |
| Kentucky (WW) | State | KY98016 | 12-31-23 |
| Michigan | State | 9135 | 02-27-24 |
| Minnesota | NELAP | 039-999-348 | 12-31-23 |
| Minnesota (Petrofund) | State | 3506 | 08-01-23 * |
| New Jersey | NELAP | OH001 | 07-01-24 |
| New York | NELAP | 10975 | 04-02-24 |
| Ohio | State | 8303 | 02-27-24 |
| Ohio VAP | State | ORELAP 4062 | 02-27-24 |
| Oregon | NELAP | 4062 | 02-27-24 |
| Pennsylvania | NELAP | 68-00340 | 08-31-24 |
| Texas | NELAP | T104704517-22-19 | 08-31-24 |
| Virginia | NELAP | 460175 | 09-14-24 |
| West Virginia DEP | State | 210 | 12-31-23 |

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

Client: ARCADIS US Inc
Job ID: 240-191867-1
Project/Site: Racer Moraine Annual

| Method | Method Description | Protocol | Laboratory |
|---|---|---|---|
| 8260D | Volatile Organic Compounds by GC/MS | SW846 | EET CLE |
| 5030C | Purge and Trap | SW846 | EET CLE |

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

EET CLE = Eurofins Cleveland, 180 S. Van Buren Avenue, Barberton, OH 44203, TEL (330)497-9396

# Sample Summary

Client: ARCADIS US Inc
Job ID: 240-191867-1
Project/Site: Racer Moraine Annual

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 240-191867-1 | W-2-S/091223/ | Water | 09/12/23 11:10 | 09/16/23 09:25 |
| 240-191867-2 | W-4-S/091223/ | Water | 09/12/23 12:40 | 09/16/23 09:25 |
| 240-191867-3 | W-3-S/091223/ | Water | 09/12/23 14:00 | 09/16/23 09:25 |
| 240-191867-4 | HR-17/091223/ | Water | 09/12/23 15:30 | 09/16/23 09:25 |
| 240-191867-5 | DUP-01/091223/ | Water | 09/12/23 00:00 | 09/16/23 09:25 |
| 240-191867-6 | EB-02/091223/ | Water | 09/12/23 17:30 | 09/16/23 09:25 |

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Instrument ID: A3UX17 Analysis Batch Number: 583404

Lab Sample ID: IC 240-583404/3 Client Sample ID:

Date Analyzed: 08/09/23 14:24 Lab File ID: 1794280.D GC Column: DB-624 ID: 0.18(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Isobutyl alcohol | 6.28 | Peak assignment corrected | HE9L | 08/10/23 09:29 |
| Dibromomethane | 7.27 | Peak assignment corrected | HE9L | 08/10/23 09:29 |
| 1,1,1,2-Tetrachloroethane | 9.39 | Peak assignment corrected | HE9L | 08/10/23 09:30 |
| 1,1-Dichloropropene | | Peak assignment corrected | HE9L | 08/10/23 09:28 |
| 1,2,3-Trichloropropane | | Invalid Compound ID | HE9L | 08/10/23 10:40 |
| 1,2-Dibromo-3-Chloropropane | | Invalid Compound ID | HE9L | 08/10/23 10:40 |
| 4-Methyl-2-pentanone (MIBK) | | Invalid Compound ID | HE9L | 08/10/23 10:39 |
| Bromobenzene | | Invalid Compound ID | HE9L | 08/10/23 10:39 |
| Bromoform | | Invalid Compound ID | HE9L | 08/10/23 10:39 |
| Bromomethane | | Invalid Compound ID | HE9L | 08/10/23 10:36 |
| Butadiene | | Invalid Compound ID | HE9L | 08/10/23 10:36 |
| Carbon disulfide | | Invalid Compound ID | HE9L | 08/10/23 10:36 |
| Chloroethane | | Peak assignment corrected | HE9L | 08/10/23 08:18 |
| Ethylene Dibromide | | Invalid Compound ID | HE9L | 08/10/23 10:39 |
| n-Heptane | | Peak assignment corrected | HE9L | 08/10/23 09:29 |
| Tetrahydrofuran | | Invalid Compound ID | HE9L | 08/10/23 10:36 |
| Vinyl acetate | | Invalid Compound ID | HE9L | 08/10/23 10:36 |
| 1,2,4-Trichlorobenzene | 12.95 | Peak assignment corrected | HE9L | 08/10/23 09:31 |
| Hexachlorobutadiene | 13.03 | Peak assignment corrected | HE9L | 08/10/23 09:31 |

Lab Sample ID: IC 240-583404/4 Client Sample ID:

Date Analyzed: 08/09/23 14:47 Lab File ID: 1794281.D GC Column: DB-624 ID: 0.18(mm)

| COMPOUND NAME | RETENTION TIME | MANUAL INTEGRATION | | |
|---|---|---|---|---|
| | | REASON | ANALYST | DATE |
| Isobutyl alcohol | 6.28 | Peak assignment corrected | HE9L | 08/10/23 09:32 |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| **vm25UX18IS_00007** | 11/03/23 | 05/03/23 | MEOH, Lot +2504522C286201028 | 100 mL | VM568718_00025 | 10 mL | 1,4-Dichlorobenzene-d4 | 25 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 25 ug/mL |
| | | | | | | | Fluorobenzene | 25 ug/mL |
| .VM568718_00025 | 05/31/27 | | restek, Lot A0185399 | | (Purchased Reagent) | | 1,4-Dichlorobenzene-d4 | 250 ug/mL |
| | | | | | | | Chlorobenzene-d5 | 250 ug/mL |
| | | | | | | | Fluorobenzene | 250 ug/mL |
| **vm25UX18SS_00008** | 01/28/24 | 07/28/23 | MEOH, Lot +2504522C286201028 | 100 mL | VM567650_00036 | 1 mL | 1,2-Dichloroethane-d4 (Surr) | 25 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 25 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 25 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 25 ug/mL |
| .VM567650_00036 | 01/31/25 | | Restek, Lot A0156891 | | (Purchased Reagent) | | 1,2-Dichloroethane-d4 (Surr) | 2500 ug/mL |
| | | | | | | | 4-Bromofluorobenzene (Surr) | 2500 ug/mL |
| | | | | | | | Dibromofluoromethane (Surr) | 2500 ug/mL |
| | | | | | | | Toluene-d8 (Surr) | 2500 ug/mL |
| **VMAROLISTDW_00496** | 08/15/23 | 08/08/23 | MEOH, Lot na | 5 mL | VMACROLSTD_00121 | 5 mL | Acrolein | 250 ug/mL |
| .VMACROLSTD_00121 | 08/31/23 | 08/08/23 | MEOH, Lot 22C2862010 | 20 mL | VM568720_00043 | 0.25 mL | Acrolein | 250 ug/mL |
| ..VM568720_00043 | 08/31/23 | | restek, Lot A0182162 | | (Purchased Reagent) | | Acrolein | 20000 ug/mL |
| **VMBFB_00032** | | | | | | | 1,2-Dichloroethene, Total | |
| | | | | | | | 1,3-Dichloropropene, Total | |
| | | | | | | | Tentatively Identified Compound | |
| | | | | | | | Total BTEX | |
| | | | | | | | Trihalomethanes, Total | |
| | | | | | | | Xylenes, Total | |
| | | | | | vm30026_00004 | 1 mL | BFB | 50 ug/mL |
| .vm30026_00004 | 02/28/27 | | restek, Lot A0181998 | | (Purchased Reagent) | | BFB | 2000 ug/mL |
| **VMFASGW_00520** | 08/11/23 | 08/04/23 | MEOH, Lot NA | 5 mL | VMFASG_00133 | 5 mL | Vinyl chloride | 50 ug/mL |
| .VMFASG_00133 | 09/04/23 | 08/04/23 | MEOH, Lot 22C2862010 | 50 mL | vm569722S_00012 | 1 mL | Vinyl chloride | 50 ug/mL |
| ..vm569722S_00012 | 05/31/26 | | Restek, Lot A0197640 | | (Purchased Reagent) | | Vinyl chloride | 2500 ug/mL |
| **VMFASGW_00526** | 09/28/23 | 09/21/23 | MEOH, Lot NA | 5 mL | VMFASG_00134 | 5 mL | Vinyl chloride | 50 ug/mL |
| .VMFASG_00134 | 10/05/23 | 09/05/23 | MEOH, Lot 22C2862010 | 50 mL | vm569722S_00012 | 1 mL | Vinyl chloride | 50 ug/mL |
| ..vm569722S_00012 | 05/31/26 | | Restek, Lot A0197640 | | (Purchased Reagent) | | Vinyl chloride | 2500 ug/mL |
| **VMFASPW_00504** | 08/15/23 | 08/08/23 | MEOH, Lot n/a | 5 mL | VMRFASP_00086 | 5 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| .VMRFASP_00086 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992S_00009 | 2 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| ..VM571992S_00009 | 08/31/25 | | Restek, Lot A0195252 | | (Purchased Reagent) | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| | | | | | | | Xylenes, Total | 5000 ug/mL |
| **VMFASPW_00510** | 09/29/23 | 09/22/23 | MEOH, Lot n/a | 5 mL | VMRFASP_00086 | 5 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| .VMRFASP_00086 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992S_00009 | 2 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| ..VM571992S_00009 | 08/31/25 | | Restek, Lot A0195252 | | (Purchased Reagent) | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| | | | | | | | Xylenes, Total | 5000 ug/mL |
| **VMRGAS_00488** | 08/15/23 | 08/08/23 | MEOH, Lot 22C2862010 | 10 mL | vm569722_00026 | 0.2 mL | Bromomethane | 50 ug/mL |
| | | | | | | | Butadiene | 50 ug/mL |
| | | | | | | | Chloroethane | 50 ug/mL |
| | | | | | | | Chloromethane | 50 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 50 ug/mL |
| | | | | | | | Dichlorofluoromethane | 50 ug/mL |
| | | | | | | | Trichlorofluoromethane | 50 ug/mL |
| | | | | | | | Vinyl chloride | 50 ug/mL |
| .vm569722_00026 | 08/31/25 | | Restek, Lot A0189184 | | (Purchased Reagent) | | Bromomethane | 2500 ug/mL |
| | | | | | | | Butadiene | 2500 ug/mL |
| | | | | | | | Chloroethane | 2500 ug/mL |
| | | | | | | | Chloromethane | 2500 ug/mL |
| | | | | | | | Dichlorodifluoromethane | 2500 ug/mL |
| | | | | | | | Dichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Trichlorofluoromethane | 2500 ug/mL |
| | | | | | | | Vinyl chloride | 2500 ug/mL |
| **VMRGAS_00494** | 09/22/23 | 09/16/23 | MEOH, Lot 22C2862010 | 10 mL | vm569722_00027 | 0.2 mL | Vinyl chloride | 50 ug/mL |
| .vm569722_00027 | 05/31/26 | | Restek, Lot A0198219 | | (Purchased Reagent) | | Vinyl chloride | 2500 ug/mL |
| **VMRPRIMW_00543** | 08/15/23 | 08/08/23 | MEOH, Lot NA | 5 mL | VMRPRIM_00063 | 5 mL | 2-Butanone (MEK) | 100 ug/mL |
| | | | | | | | 2-Hexanone | 100 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 100 ug/mL |
| | | | | | | | Acetone | 100 ug/mL |
| | | | | | | | 2-Chloroethyl vinyl ether | 100 ug/mL |
| | | | | | | | Vinyl acetate | 50 ug/mL |
| | | | | | | | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,4-Dioxane | 1000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chlorobromomethane | 50 ug/mL |
| | | | | | | | Chlorodibromomethane | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Dichlorobromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Ethylene Dibromide | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 100 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| .VMRPRIM_00063 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM569721_00008 | 0.8 mL | 2-Butanone (MEK) | 100 ug/mL |
| | | | | | | | 2-Hexanone | 100 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 100 ug/mL |
| | | | | | | | Acetone | 100 ug/mL |
| | | | | | VM569723_00010 | 4 mL | 2-Chloroethyl vinyl ether | 100 ug/mL |
| | | | | | VM569724_00028 | 1 mL | Vinyl acetate | 50 ug/mL |
| | | | | | VM571992_00006 | 2 mL | 1,1,1,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 50 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 50 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 50 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 50 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | 1,4-Dichlorobenzene | 50 ug/mL |
| | | | | | | | 1,4-Dioxane | 1000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 50 ug/mL |
| | | | | | | | 2-Chlorotoluene | 50 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 500 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 50 ug/mL |
| | | | | | | | 4-Chlorotoluene | 50 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 50 ug/mL |
| | | | | | | | Acrylonitrile | 500 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | Bromobenzene | 50 ug/mL |
| | | | | | | | Bromoform | 50 ug/mL |
| | | | | | | | Carbon disulfide | 50 ug/mL |
| | | | | | | | Carbon tetrachloride | 50 ug/mL |
| | | | | | | | Chlorobenzene | 50 ug/mL |
| | | | | | | | Chlorobromomethane | 50 ug/mL |
| | | | | | | | Chlorodibromomethane | 50 ug/mL |
| | | | | | | | Chloroform | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | Cyclohexane | 50 ug/mL |
| | | | | | | | Dibromomethane | 50 ug/mL |
| | | | | | | | Dichlorobromomethane | 50 ug/mL |
| | | | | | | | Ethyl ether | 50 ug/mL |
| | | | | | | | Ethyl methacrylate | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | Ethylene Dibromide | 50 ug/mL |
| | | | | | | | Hexachlorobutadiene | 50 ug/mL |
| | | | | | | | Hexane | 50 ug/mL |
| | | | | | | | Iodomethane | 50 ug/mL |
| | | | | | | | Isobutyl alcohol | 1250 ug/mL |
| | | | | | | | Isopropylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | Methyl acetate | 100 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 50 ug/mL |
| | | | | | | | Methylcyclohexane | 50 ug/mL |
| | | | | | | | Methylene Chloride | 50 ug/mL |
| | | | | | | | n-Butylbenzene | 50 ug/mL |
| | | | | | | | n-Heptane | 50 ug/mL |
| | | | | | | | N-Propylbenzene | 50 ug/mL |
| | | | | | | | Naphthalene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | sec-Butylbenzene | 50 ug/mL |
| | | | | | | | Styrene | 50 ug/mL |
| | | | | | | | tert-Butylbenzene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Tetrahydrofuran | 100 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 50 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| ..VM569721_00008 | 06/30/25 | | Restek, Lot A0186508 | | (Purchased Reagent) | | 2-Butanone (MEK) | 12500 ug/mL |
| | | | | | | | 2-Hexanone | 12500 ug/mL |
| | | | | | | | 4-Methyl-2-pentanone (MIBK) | 12500 ug/mL |
| | | | | | | | Acetone | 12500 ug/mL |
| ..VM569723_00010 | 09/30/24 | | restek, Lot A0176827 | | (Purchased Reagent) | | 2-Chloroethyl vinyl ether | 2500 ug/mL |
| ..VM569724_00028 | 01/31/24 | | Restek, Lot A0187365 | | (Purchased Reagent) | | Vinyl acetate | 5000 ug/mL |
| ..VM571992_00006 | 09/30/24 | | Restek, Lot A0183568 | | (Purchased Reagent) | | 1,1,1,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2,2-Tetrachloroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloro-1,2,2-trifluoroethane | 2500 ug/mL |
| | | | | | | | 1,1,2-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | 1,1-Dichloropropene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,3-Trichloropropane | 2500 ug/mL |
| | | | | | | | 1,2,4-Trichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2,4-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dibromo-3-Chloropropane | 2500 ug/mL |
| | | | | | | | 1,2-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,2-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,3,5-Trimethylbenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,3-Dichloropropane | 2500 ug/mL |
| | | | | | | | 1,4-Dichlorobenzene | 2500 ug/mL |
| | | | | | | | 1,4-Dioxane | 50000 ug/mL |
| | | | | | | | 2,2-Dichloropropane | 2500 ug/mL |
| | | | | | | | 2-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 2-Methyl-2-propanol | 25000 ug/mL |
| | | | | | | | 3-Chloro-1-propene | 2500 ug/mL |
| | | | | | | | 4-Chlorotoluene | 2500 ug/mL |
| | | | | | | | 4-Isopropyltoluene | 2500 ug/mL |
| | | | | | | | Acrylonitrile | 25000 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | Bromobenzene | 2500 ug/mL |
| | | | | | | | Bromoform | 2500 ug/mL |
| | | | | | | | Carbon disulfide | 2500 ug/mL |
| | | | | | | | Carbon tetrachloride | 2500 ug/mL |
| | | | | | | | Chlorobenzene | 2500 ug/mL |
| | | | | | | | Chlorobromomethane | 2500 ug/mL |
| | | | | | | | Chlorodibromomethane | 2500 ug/mL |

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Chloroform | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | cis-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | Cyclohexane | 2500 ug/mL |
| | | | | | | | Dibromomethane | 2500 ug/mL |
| | | | | | | | Dichlorobromomethane | 2500 ug/mL |
| | | | | | | | Ethyl ether | 2500 ug/mL |
| | | | | | | | Ethyl methacrylate | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | Ethylene Dibromide | 2500 ug/mL |
| | | | | | | | Hexachlorobutadiene | 2500 ug/mL |
| | | | | | | | Hexane | 2500 ug/mL |
| | | | | | | | Iodomethane | 2500 ug/mL |
| | | | | | | | Isobutyl alcohol | 62500 ug/mL |
| | | | | | | | Isopropylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | Methyl acetate | 5000 ug/mL |
| | | | | | | | Methyl tert-butyl ether | 2500 ug/mL |
| | | | | | | | Methylcyclohexane | 2500 ug/mL |
| | | | | | | | Methylene Chloride | 2500 ug/mL |
| | | | | | | | n-Butylbenzene | 2500 ug/mL |
| | | | | | | | n-Heptane | 2500 ug/mL |
| | | | | | | | N-Propylbenzene | 2500 ug/mL |
| | | | | | | | Naphthalene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | sec-Butylbenzene | 2500 ug/mL |
| | | | | | | | Styrene | 2500 ug/mL |
| | | | | | | | tert-Butylbenzene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Tetrahydrofuran | 5000 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | trans-1,3-Dichloropropene | 2500 ug/mL |
| | | | | | | | trans-1,4-Dichloro-2-butene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| **VMRPRIMW_00543** | 08/15/23 | 08/08/23 | MEOH, Lot NA | 5 mL | VMRPRIM_00063 | 5 mL | Xylenes, Total | 100 ug/mL |
| .VMRPRIM_00063 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992_00006 | 2 mL | Xylenes, Total | 100 ug/mL |
| ..VM571992_00006 | 09/30/24 | | Restek, Lot A0183568 | | (Purchased Reagent) | | Xylenes, Total | 5000 ug/mL |
| **VMRPRIMW_00548** | 09/22/23 | 09/15/23 | MEOH, Lot NA | 5 mL | VMRPRIM_00063 | 5 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |

# REAGENT TRACEABILITY SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

| Reagent ID | Exp Date | Prep Date | Dilutant Used | Reagent Final Volume | Parent Reagent | | Analyte | Concentration |
|---|---|---|---|---|---|---|---|---|
| | | | | | Reagent ID | Volume Added | | |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| .VMRPRIM_00063 | 01/01/24 | 07/01/23 | MEOH, Lot 22C2862010 | 100 mL | VM571992_00006 | 2 mL | 1,1,1-Trichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 50 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 50 ug/mL |
| | | | | | | | Benzene | 50 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Ethylbenzene | 50 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 50 ug/mL |
| | | | | | | | o-Xylene | 50 ug/mL |
| | | | | | | | Tetrachloroethene | 50 ug/mL |
| | | | | | | | Toluene | 50 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 50 ug/mL |
| | | | | | | | Trichloroethene | 50 ug/mL |
| | | | | | | | Xylenes, Total | 100 ug/mL |
| ..VM571992_00006 | 09/30/24 | Restek, Lot A0183568 | | | (Purchased Reagent) | | 1,1,1-Trichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethane | 2500 ug/mL |
| | | | | | | | 1,1-Dichloroethene | 2500 ug/mL |
| | | | | | | | Benzene | 2500 ug/mL |
| | | | | | | | cis-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Ethylbenzene | 2500 ug/mL |
| | | | | | | | m-Xylene & p-Xylene | 2500 ug/mL |
| | | | | | | | o-Xylene | 2500 ug/mL |
| | | | | | | | Tetrachloroethene | 2500 ug/mL |
| | | | | | | | Toluene | 2500 ug/mL |
| | | | | | | | trans-1,2-Dichloroethene | 2500 ug/mL |
| | | | | | | | Trichloroethene | 2500 ug/mL |
| | | | | | | | Xylenes, Total | 5000 ug/mL |

# Reagent

# vm30026_00004

VM30026_00004 Rcvd 6/3/22

# RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
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## Certificate of Analysis

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 30026 **Lot No.:** A0181998

**Description :** 4-Bromofluorobenzene Mixture

4-Bromofluorobenzene 2000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** February 28, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | 1-Bromo-4-fluorobenzene (BFB) | 2,002.0 µg/mL | +/- 11.7489 | µg/mL | Gravimetric |
| | **CAS #** 460-00-4 (Lot 20401KO) | | +/- 112.2615 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 114.8878 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

# Reagent

# VM567650_00036

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# CERTIFIED REFERENCE MATERIAL

## Certificate of Analysis

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 567650 **Lot No.:** A0156891

**Description :** 8260 Surrogate Standard

8260 Surrogate Standard 2,500µg/mL, P&T Methanol, 5mL/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** January 31, 2025 **Storage:** 0°C or colder

**C E R T I F I E D V A L U E S**

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Dibromofluoromethane<br>**CAS #** 1868-53-7 (Lot 0012016)<br>**Purity** 99% | 2,510.9 µg/mL | +/- 14.5986 µg/mL<br>+/- 140.7837 µg/mL<br>+/- 144.0778 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 1,2-Dichloroethane-d4<br>**CAS #** 17060-07-0 (Lot PR-29377)<br>**Purity** 99% | 2,510.2 µg/mL | +/- 14.5945 µg/mL<br>+/- 140.7444 µg/mL<br>+/- 144.0377 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | Toluene-d8<br>**CAS #** 2037-26-5 (Lot I-21928)<br>**Purity** 99% | 2,513.0 µg/mL | +/- 14.6105 µg/mL<br>+/- 140.8986 µg/mL<br>+/- 144.1955 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1-Bromo-4-fluorobenzene (BFB)<br>**CAS #** 460-00-4 (Lot 20401KO)<br>**Purity** 99% | 2,514.4 µg/mL | +/- 14.6186 µg/mL<br>+/- 140.9771 µg/mL<br>+/- 144.2758 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

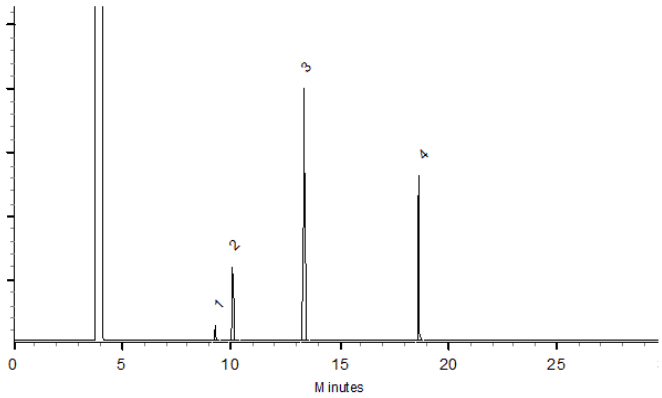
**Carrier Gas:**
hydrogen-constant pressure 11.0 psi.

**Temp. Program:**
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
FID




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust - Mix Technician

**Date Mixed:** 19-Jan-2020 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

**Date Passed:** 21-Jan-2020

**Manufactured under Restek's ISO 9001:2015**
**Registered Quality System**
**Certificate #FM 80397**

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

*k* is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

# Reagent

# VM568718_00025

Rec: 9/15/22

~~VM56~~ VM568718_00025

# RESTEK® CERTIFIED REFERENCE MATERIAL

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Bellefonte, PA 16823-8812
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## Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568718 **Lot No.:** A0185399

**Description :** 8260 Internal Standard 2014

8260 Internal Standard 2014 250-5,000µg/mL, P&T Methanol/Water (90:10), 5mL/ampul

**Container Size :** 5 mL **Pkg Amt:** > 5 mL

**Expiration Date :** May 31, 2027 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|---|
| 1 | tert-Butyl-d9-alcohol | | 5,001.2 µg/mL | +/- 29.0759 | µg/mL | Gravimetric |
| | **CAS #** 25725-11-5 | (Lot CD-107) | | +/- 107.0759 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 110.1888 | µg/mL | Stressed |
| 2 | 2-Butanone-d5 | | 1,262.5 µg/mL | +/- 7.3403 | µg/mL | Gravimetric |
| | **CAS #** 24313-50-6 | (Lot M-276) | | +/- 27.0303 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 27.8161 | µg/mL | Stressed |
| 3 | Fluorobenzene | | 250.9 µg/mL | +/- 1.4618 | µg/mL | Gravimetric |
| | **CAS #** 462-06-6 | (Lot BCBZ5549) | | +/- 5.3716 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 5.5278 | µg/mL | Stressed |
| 4 | 1,4-Dioxane-d8 | | 5,015.3 µg/mL | +/- 29.1576 | µg/mL | Gravimetric |
| | **CAS #** 17647-74-4 | (Lot RP220427) | | +/- 107.3767 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 110.4983 | µg/mL | Stressed |
| 5 | Chlorobenzene-d5 | | 250.9 µg/mL | +/- 1.4621 | µg/mL | Gravimetric |
| | **CAS #** 3114-55-4 | (Lot PR-29571) | | +/- 5.3727 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 5.5289 | µg/mL | Stressed |
| 6 | 1,4-Dichlorobenzene-d4 | | 252.0 µg/mL | +/- 1.4682 | µg/mL | Gravimetric |
| | **CAS #** 3855-82-1 | (Lot PR-30447) | | +/- 5.3952 | µg/mL | Unstressed |
| | **Purity** 99% | | | +/- 5.5520 | µg/mL | Stressed |

**General Certified Reference Material Notes**

**Expiration Notes:**

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

**Purity Notes:**

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

**Certified Uncertainty Value Notes:**

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value ( includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  $k$ is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

| Label Conditions | Standard Conditions | Non-Standard Conditions |
|---|---|---|
| 25°C Nominal (Room Temperature) | < 60°C | ≥ 60°C up to 7 days |
| 10°C or colder (Refrigerate) | < 40°C | ≥ 40°C up to 7 days |
| 0°C or colder (Freezer)<br>-20°C or colder (Deep Freezer) | < 25°C | ≥ 25°C up to 7 days |

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

**Manufacturing Notes:**

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

**Handling Notes:**

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

RESTEK

# Safety Data Sheet

**Revision Date: 09/13/21**
www.restek.com

2 Letter ISO country code/language code: US/EN

## 1. IDENTIFICATION

| | |
|---|---|
| **Catalog Number / Product Name:** | **568718 / 8260 Internal Standard 2014** |
| **Company:** | Restek Corporation |
| **Address:** | 110 Benner Circle<br>Bellefonte, Pa. 16823 |
| **Phone#:** | 814-353-1300 |
| **Fax#:** | 814-353-1309 |
| **Emergency#:** | 800-424-9300 (CHEMTREC)<br>703-527-3887 (Outside the US) |
| **Email:** | www.restek.com |
| **Revision Number:** | 4 |
| **Intended use:** | For Laboratory use only |

## 2. HAZARD(S)IDENTIFICATION

**Emergency Overview:**

**GHS Hazard Symbols:**

**GHS Classification:**
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

**GHS Signal Word:**
Danger

**GHS Hazard:**
Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Causes damage to organs.

**GHS Precautions:**

**Safety Precautions:**
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

**First Aid Measures:**
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

**Methods for Clean-up:** Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container

## 7. HANDLING AND STORAGE

**Handling Technical Measures and Precautions:** Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

**Storage Technical Measures and Conditions:** Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**United States:**

| Chemical Name | CAS No. | IDLH | ACGIH STEL | ACGIH TLV-TWA | OSHA Exposure Limit |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | 6000 ppm IDLH | 250 ppm STEL | 200 ppm TWA | 200 ppm TWA; 260 mg/m3 TWA |
| water | 7732-18-5 | Not established | None Known | Not established | No data available |
| 1,4-dioxane-d8 | 17647-74-4 | Not established | None Known | Not established | No data available |

**Personal Protection:**

**Engineering Measures:** Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

**Respiratory Protection:** No respiratory protection required under normal conditions of use. Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

**Eye Protection:** Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

**Skin Protection:** Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Appearance, color:** | No data available |
| **Odor:** | Mild |
| **Physical State:** | Liquid |
| **pH:** | Not applicable |
| **Vapor Pressure:** | No data available |
| **Vapor Density:** | 1.1 (air = 1) |
| **Boiling Point (°C):** | 100 °C Boiling Point 64.7 °C at 1013 hPa (ECHA_API) |
| **Melting Point (°C):** | -98 °C |
| **Flash Point (°F):** | 52 |
| **Flammability:** | Highly Flammable |
| **Upper Flammable/Explosive Limit, % in air:** | 36 |
| **Lower Flammable/Explosive Limit, % in air:** | 6 |
| **Autoignition Temperature (°C):** | 464 deg C |
| **Decomposition Temperature (°C):** | No data available |
| **Specific Gravity:** | 0.791 - 0.792 g/cm3 at 20 °C |
| **Evaporation Rate:** | No data available |

**NIOSH:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**NTP:**

| Chemical Name | CAS No. |
|---|---|
| No data available | |

**IARC:**

| Chemical Name | CAS No. | Group No. |
|---|---|---|

## 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| **Overview:** | Moderate ecological hazard. This product may be dangerous to plants and/or wildlife. |
| **Mobility:** | No data |
| **Persistence:** | No data |
| **Bioaccumulation:** | No data |
| **Degradability:** | Biodegrades slowly. |
| **Ecological Toxicity Data:** | No data available |

## 13. DISPOSAL CONSIDERATIONS

| | |
|---|---|
| **Waste Description of Spent Product:** | Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures. |
| **Disposal Methods:** | Dispose of by incineration following Federal, State, Local, or Provincial regulations. |
| **Waste Disposal of Packaging:** | Comply with all Local, State, Federal, and Provincial Environmental Regulations. |

## 14. TRANSPORTATION INFORMATION

**United States:**

| | |
|---|---|
| **DOT Proper Shipping Name:** | Flammable liquids, n.o.s. (Methanol, Fluorobenzene) |
| **UN Number:** | UN1993 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |

**International:**

| | |
|---|---|
| **IATA Proper Shipping Name:** | Flammable liquids, n.o.s. (Methanol, Fluorobenzene) |
| **UN Number:** | UN1993 |
| **Hazard Class:** | 3 |
| **Packing Group:** | II |

**Marine Pollutant:** No

| Chemical Name | CAS# | Marine Pollutant | Severe Marine Pollutant |
|---|---|---|---|
| No data available | | | |

## 15. REGULATORY INFORMATION

**United States:**

| Chemical Name | CAS# | CERCLA | SARA 313 | SARA EHS 313 | TSCA |
|---|---|---|---|---|---|
| P&T Methanol | 67-56-1 | X | X | - | X |
| water | 7732-18-5 | - | - | - | X |
| 1,4-dioxane-d8 | 17647-74-4 | - | - | - | - |

**The following chemicals are listed on CA Prop 65:**

| Chemical Name | CAS # | Regulation |
|---|---|---|
| Methanol | 67-56-1 | Prop 65 Devolop Tox |

# Reagent

# VM568720_00043

VM 568720 — 00043 Rcd 9/21/22

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 568720 **Lot No.:** A0182162

**Description :** 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750µg/mL, Water, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2023 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** On Ice

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acrolein | 19,750.0 µg/mL | +/- 115.6406 µg/mL | Gravimetric |
| | **CAS #** 107-02-8 (Lot RD220120) | | +/- 394.5522 µg/mL | Unstressed |
| | **Purity** 99% | | +/- 885.1676 µg/mL | Stressed |

**Solvent:** Water
**CAS #** 7732-18-5
**Purity** 99%

# Reagent

# VM569721_00008

VM569721_00008

Rcd 9-21-22

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**Catalog No. :** 569721 **Lot No.:** A0186508

**Description :** 8260 List 1/ Std #2 Ketones (2015)

8260 List 1/ Std #2 Ketones (2015) 12,500µg/mL, P&T Methanol/Water (90:10), 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** June 30, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Acetone<br>**CAS #** 67-64-1 (Lot MKCQ7914)<br>**Purity** 99% | 12,514.5 µg/mL | +/- 73.2751 µg/mL<br>+/- 755.1050 µg/mL<br>+/- 756.8975 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 2-Butanone (MEK)<br>**CAS #** 78-93-3 (Lot SHBN2844)<br>**Purity** 99% | 12,543.5 µg/mL | +/- 73.4450 µg/mL<br>+/- 756.8548 µg/mL<br>+/- 758.6515 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 4-Methyl-2-pentanone (MIBK)<br>**CAS #** 108-10-1 (Lot SHBN3601)<br>**Purity** 99% | 12,528.5 µg/mL | +/- 73.3571 µg/mL<br>+/- 755.9498 µg/mL<br>+/- 757.7443 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 2-Hexanone<br>**CAS #** 591-78-6 (Lot MKCQ6663)<br>**Purity** 99% | 12,528.0 µg/mL | +/- 73.3542 µg/mL<br>+/- 755.9196 µg/mL<br>+/- 757.7140 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol/Water (90:10)
**CAS #** 67-56-1/7732-18-5
**Purity** 99%

# Reagent

# vm569722_00026

Rec'd 4/20/23 JM 569722 00026

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*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722 **Lot No.:** A0189184

**Description :** 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12)<br>**CAS #** 75-71-8 (Lot 00012554)<br>**Purity** 99% | 2,500.3 µg/mL | +/- 18.6878 µg/mL<br>+/- 140.6792 µg/mL<br>+/- 143.9483 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | Chloromethane (methyl chloride)<br>**CAS #** 74-87-3 (Lot SHBK6571)<br>**Purity** 99% | 2,500.0 µg/mL | +/- 17.9318 µg/mL<br>+/- 140.5648 µg/mL<br>+/- 143.8357 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | Vinyl chloride<br>**CAS #** 75-01-4 (Lot 00015559)<br>**Purity** 99% | 2,500.2 µg/mL | +/- 20.7208 µg/mL<br>+/- 140.9576 µg/mL<br>+/- 144.2201 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | 1,3-Butadiene<br>**CAS #** 106-99-0 (Lot 00019375)<br>**Purity** 99% | 2,499.9 µg/mL | +/- 18.9759 µg/mL<br>+/- 140.6968 µg/mL<br>+/- 143.9645 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Bromomethane (methyl bromide)<br>**CAS #** 74-83-9 (Lot 101604)<br>**Purity** 99% | 2,500.1 µg/mL | +/- 19.8264 µg/mL<br>+/- 140.8262 µg/mL<br>+/- 144.0915 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | Chloroethane (ethyl chloride)<br>**CAS #** 75-00-3 (Lot 107-401039114-1)<br>**Purity** 99% | 2,500.6 µg/mL | +/- 23.7833 µg/mL<br>+/- 141.4639 µg/mL<br>+/- 144.7161 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | Dichlorofluoromethane (CFC-21)<br>**CAS #** 75-43-4 (Lot 12841600)<br>**Purity** 99% | 2,500.0 µg/mL | +/- 14.5352 µg/mL<br>+/- 140.1725 µg/mL<br>+/- 143.4524 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

# Reagent

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# vm569722_00027

Rec'd 8-30-23 VH 569722 — 00927

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**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722 **Lot No.:** A0198219

**Description :** 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2026 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | CAS # | Lot # | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---|---|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 75-71-8 | 00012554 | 99% | 2,501.0 µg/mL | +/- 141.1841 |
| 2 | Chloromethane (methyl chloride) | 74-87-3 | SHBM9611 | 99% | 2,503.5 µg/mL | +/- 141.4535 |
| 3 | Vinyl chloride | 75-01-4 | 00015559 | 99% | 2,504.0 µg/mL | +/- 141.5201 |
| 4 | 1,3-Butadiene | 106-99-0 | 00015314 | 99% | 2,503.4 µg/mL | +/- 140.8433 |
| 5 | Bromomethane (methyl bromide) | 74-83-9 | 101604 | 99% | 2,508.8 µg/mL | +/- 141.7591 |
| 6 | Chloroethane (ethyl chloride) | 75-00-3 | 107-401039114-1 | 99% | 2,500.4 µg/mL | +/- 141.1450 |
| 7 | Dichlorofluoromethane (CFC-21) | 75-43-4 | 14150400 | 90% | 2,502.0 µg/mL | +/- 140.5515 |
| 8 | Trichlorofluoromethane (CFC-11) | 75-69-4 | MKCL8411 | 99% | 2,504.2 µg/mL | +/- 141.6568 |

* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

# Reagent

# vm569722S_00012

Rcd 5-15-23

VM569722S_0002

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# Certificate of Analysis

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*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 569722.SEC **Lot No.:** A0197640

**Description :** 8260 List 1 / Std #3 Gases (2015)

8260 List 1 / Std #3 Gases (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** May 31, 2026 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | CAS # | Lot # | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---|---|---|---|---|---|---|
| 1 | Dichlorodifluoromethane (CFC-12) | 75-71-8.SEC | 28302 | 99% | 2,519.8 µg/mL | +/- 142.0069 |
| 2 | Chloromethane (methyl chloride) | 74-87-3.SEC | 00016950 | 99% | 2,503.3 µg/mL | +/- 142.0942 |
| 3 | Vinyl chloride | 75-01-4.SEC | MKBK6872V | 99% | 2,508.3 µg/mL | +/- 141.4767 |
| 4 | 1,3-Butadiene | 106-99-0.SEC | 26996 | 99% | 2,521.0 µg/mL | +/- 142.1930 |
| 5 | Bromomethane (methyl bromide) | 74-83-9.SEC | 00017022 | 99% | 2,516.4 µg/mL | +/- 141.9614 |
| 6 | Chloroethane (ethyl chloride) | 75-00-3.SEC | 00004202 | 98% | 2,532.0 µg/mL | +/- 143.0282 |
| 7 | Dichlorofluoromethane (CFC-21) | 75-43-4 * | 14150400 | 90% | 2,502.0 µg/mL | +/- 140.5515 |
| 8 | Trichlorofluoromethane (CFC-11) | 75-69-4.SEC | 00010739 | 99% | 2,524.7 µg/mL | +/- 143.6054 |

* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

# Reagent

# VM569723_00010

Rcd 9/19/22 VM569723 — 00010

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**Catalog No. :** 569723 **Lot No.:** A0176827

**Description :** 8260 List 1 / Std #4 2-CEVE (2015)

8260 List 1 / Std #4 2-CEVE (2015) 2,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** September 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

## CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | 2-Chloroethyl vinyl ether<br>**CAS #** 110-75-8 (Lot MKCD0033)<br>**Purity** 99% | 2,505.0 µg/mL | +/- 14.7007 µg/mL<br>+/- 53.6696 µg/mL<br>+/- 55.2277 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**
Degradation of tetrachloroethylene to pentachloroethane may occur if solutions containing 2-chloroethyl vinyl ether are combined with solutions that contain tetrachloroethylene.

# Reagent

# VM569724_00028

VM569724 — D00028

Rcvd 9/21/22

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**Catalog No. :** 569724 **Lot No.:** A0187365

**Description :** 8260 List 1 / Std #6 Vinyl Acetate (2015)

8260 List 1 / Std #6 Vinyl Acetate (2015) 5,000µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** January 31, 2024 **Storage:** -20°C or colder

**Handling:** This product is photosensitive. **Ship:** On Ice

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | | |
|---|---|---|---|---|---|
| 1 | Vinyl acetate | 5,022.0 µg/mL | +/- 29.4049 | µg/mL | Gravimetric |
| | **CAS #** 108-05-4 (Lot RD220630) | | +/- 303.0195 | µg/mL | Unstressed |
| | **Purity** 99% | | +/- 303.7388 | µg/mL | Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Tech Tips:**

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

# Reagent

# VM571992_00006

VM571992 — 00006 Rc'd 10/31/22

# RESTEK® CERTIFIED REFERENCE MATERIAL

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

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Testing Laboratory
Certificate #3222.02

## Certificate of Analysis

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992 **Lot No.:** A0183568

**Description :** 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** September 30, 2024 **Storage:** 0°C or colder

**Ship:** Ambient

### CERTIFIED VALUES

| Elution Order | Compound | Grav. Conc. (weight/volume) | Expanded Uncertainty (95% C.L.; K=2) | |
|---|---|---|---|---|
| 1 | Diethyl ether (ethyl ether)<br>**CAS #** 60-29-7 (Lot SHBN4280)<br>**Purity** 99% | 2,506.6 µg/mL | +/- 14.5737 µg/mL<br>+/- 151.2358 µg/mL<br>+/- 151.5949 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113)<br>**CAS #** 76-13-1 (Lot 00016133)<br>**Purity** 99% | 2,514.5 µg/mL | +/- 14.6195 µg/mL<br>+/- 151.7109 µg/mL<br>+/- 152.0711 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 3 | 1,1-dichloroethene<br>**CAS #** 75-35-4 (Lot SHBG8609V)<br>**Purity** 99% | 2,515.1 µg/mL | +/- 14.6232 µg/mL<br>+/- 151.7486 µg/mL<br>+/- 152.1089 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 4 | tert-Butanol (TBA)<br>**CAS #** 75-65-0 (Lot 101619K21F-1)<br>**Purity** 99% | 25,080.8 µg/mL | +/- 145.8140 µg/mL<br>+/- 1,513.2321 µg/mL<br>+/- 1,516.8247 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 5 | Methyl acetate<br>**CAS #** 79-20-9 (Lot SHBM1320)<br>**Purity** 99% | 5,026.6 µg/mL | +/- 29.2252 µg/mL<br>+/- 303.2786 µg/mL<br>+/- 303.9986 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 6 | Iodomethane (methyl iodide)<br>**CAS #** 74-88-4 (Lot RD220125)<br>**Purity** 99% | 2,505.3 µg/mL | +/- 14.5657 µg/mL<br>+/- 151.1528 µg/mL<br>+/- 151.5117 µg/mL | Gravimetric<br>Unstressed<br>Stressed |
| 7 | Allyl chloride ( 3-chloropropene )<br>**CAS #** 107-05-1 (Lot RD211021)<br>**Purity** 99% | 2,509.1 µg/mL | +/- 14.5883 µg/mL<br>+/- 151.3866 µg/mL<br>+/- 151.7460 µg/mL | Gravimetric<br>Unstressed<br>Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8 | Methylene chloride (dichloromethane) | | 2,513.3 | µg/mL | +/- | 14.6123 | µg/mL | Gravimetric |
| | **CAS #** 75-09-2 | (Lot SHBP1417) | | | +/- | 151.6355 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9955 | µg/mL | Stressed |
| 9 | Carbon disulfide | | 2,510.1 | µg/mL | +/- | 14.5941 | µg/mL | Gravimetric |
| | **CAS #** 75-15-0 | (Lot N28F701) | | | +/- | 151.4470 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8065 | µg/mL | Stressed |
| 10 | Acrylonitrile | | 25,102.9 | µg/mL | +/- | 145.9426 | µg/mL | Gravimetric |
| | **CAS #** 107-13-1 | (Lot SHBK4954) | | | +/- | 1,514.5670 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 1,518.1628 | µg/mL | Stressed |
| 11 | Methyl-tert-butyl ether ( MTBE ) | | 2,513.8 | µg/mL | +/- | 14.6152 | µg/mL | Gravimetric |
| | **CAS #** 1634-04-4 | (Lot SHBN6497) | | | +/- | 151.6657 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0258 | µg/mL | Stressed |
| 12 | cis-1,2-Dichloroethene | | 2,515.1 | µg/mL | +/- | 14.6232 | µg/mL | Gravimetric |
| | **CAS #** 156-59-2 | (Lot MKCP7830) | | | +/- | 151.7486 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1089 | µg/mL | Stressed |
| 13 | n-Hexane (C6) | | 2,515.5 | µg/mL | +/- | 14.6253 | µg/mL | Gravimetric |
| | **CAS #** 110-54-3 | (Lot SHBL9879) | | | +/- | 151.7713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1316 | µg/mL | Stressed |
| 14 | 1,1-Dichloroethane | | 2,517.9 | µg/mL | +/- | 14.6391 | µg/mL | Gravimetric |
| | **CAS #** 75-34-3 | (Lot 760200) | | | +/- | 151.9146 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2752 | µg/mL | Stressed |
| 15 | 2,2-Dichloropropane | | 2,517.9 | µg/mL | +/- | 14.6391 | µg/mL | Gravimetric |
| | **CAS #** 594-20-7 | (Lot RD211103) | | | +/- | 151.9146 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2752 | µg/mL | Stressed |
| 16 | trans-1,2-Dichloroethene | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 156-60-5 | (Lot MKBH9850V) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 17 | Isobutanol (2-Methyl-1-propanol) | | 62,633.1 | µg/mL | +/- | 364.1354 | µg/mL | Gravimetric |
| | **CAS #** 78-83-1 | (Lot 098794J01H) | | | +/- | 3,778.9321 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 3,787.9040 | µg/mL | Stressed |
| 18 | chloroform | | 2,510.9 | µg/mL | +/- | 14.5984 | µg/mL | Gravimetric |
| | **CAS #** 67-66-3 | (Lot SHBN8469) | | | +/- | 151.4922 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8519 | µg/mL | Stressed |
| 19 | Bromochloromethane | | 2,517.0 | µg/mL | +/- | 14.6341 | µg/mL | Gravimetric |
| | **CAS #** 74-97-5 | (Lot 00008541) | | | +/- | 151.8618 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2223 | µg/mL | Stressed |
| 20 | Tetrahydrofuran | | 5,036.1 | µg/mL | +/- | 29.2805 | µg/mL | Gravimetric |
| | **CAS #** 109-99-9 | (Lot SHBN3757) | | | +/- | 303.8517 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 304.5731 | µg/mL | Stressed |
| 21 | 1,1,1-trichloroethane | | 2,509.6 | µg/mL | +/- | 14.5912 | µg/mL | Gravimetric |
| | **CAS #** 71-55-6 | (Lot RD220215) | | | +/- | 151.4168 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7763 | µg/mL | Stressed |
| 22 | Cyclohexane | | 2,510.0 | µg/mL | +/- | 14.5934 | µg/mL | Gravimetric |
| | **CAS #** 110-82-7 | (Lot EA003-US) | | | +/- | 151.4394 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7990 | µg/mL | Stressed |
| 23 | 1,1-Dichloropropene | | 2,513.8 | µg/mL | +/- | 14.6152 | µg/mL | Gravimetric |
| | **CAS #** 563-58-6 | (Lot 220217JLM) | | | +/- | 151.6657 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0258 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 24 | carbon tetrachloride | | 2,513.5 | µg/mL | +/- | 14.6137 | µg/mL | Gravimetric |
| | **CAS #** 56-23-5 | (Lot SHBL8097) | | | +/- | 151.6506 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0106 | µg/mL | Stressed |
| 25 | n-Heptane (C7) | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 142-82-5 | (Lot SGBL9221) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 26 | 1,2-Dichloroethane | | 2,514.4 | µg/mL | +/- | 14.6188 | µg/mL | Gravimetric |
| | **CAS #** 107-06-2 | (Lot MKCN9758) | | | +/- | 151.7034 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0636 | µg/mL | Stressed |
| 27 | Benzene | | 2,509.3 | µg/mL | +/- | 14.5890 | µg/mL | Gravimetric |
| | **CAS #** 71-43-2 | (Lot MKCM9242) | | | +/- | 151.3942 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7536 | µg/mL | Stressed |
| 28 | Trichloroethene | | 2,507.5 | µg/mL | +/- | 14.5788 | µg/mL | Gravimetric |
| | **CAS #** 79-01-6 | (Lot SHBL5816) | | | +/- | 151.2886 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.6478 | µg/mL | Stressed |
| 29 | Methylcyclohexane | | 2,510.3 | µg/mL | +/- | 14.5948 | µg/mL | Gravimetric |
| | **CAS #** 108-87-2 | (Lot SHBL0078) | | | +/- | 151.4545 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8141 | µg/mL | Stressed |
| 30 | 1,2-Dichloropropane | | 2,510.9 | µg/mL | +/- | 14.5984 | µg/mL | Gravimetric |
| | **CAS #** 78-87-5 | (Lot BCBR0882V) | | | +/- | 151.4922 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8519 | µg/mL | Stressed |
| 31 | 1,4-Dioxane | | 50,187.5 | µg/mL | +/- | 291.7792 | µg/mL | Gravimetric |
| | **CAS #** 123-91-1 | (Lot SHBM9675) | | | +/- | 3,028.0328 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 3,035.2219 | µg/mL | Stressed |
| 32 | Dibromomethane | | 2,511.0 | µg/mL | +/- | 14.5992 | µg/mL | Gravimetric |
| | **CAS #** 74-95-3 | (Lot 10201030) | | | +/- | 151.4998 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8594 | µg/mL | Stressed |
| 33 | cis-1,3-Dichloropropene | | 2,513.8 | µg/mL | +/- | 14.6152 | µg/mL | Gravimetric |
| | **CAS #** 10061-01-5 | (Lot RD220311) | | | +/- | 151.6657 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0258 | µg/mL | Stressed |
| 34 | Toluene | | 2,518.4 | µg/mL | +/- | 14.6420 | µg/mL | Gravimetric |
| | **CAS #** 108-88-3 | (Lot MKCQ2779) | | | +/- | 151.9447 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3055 | µg/mL | Stressed |
| 35 | Ethyl methacrylate | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 97-63-2 | (Lot MKCL0907) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 36 | trans-1,3-Dichloropropene | | 2,504.5 | µg/mL | +/- | 14.5615 | µg/mL | Gravimetric |
| | **CAS #** 10061-02-6 | (Lot RD211104) | | | +/- | 151.1083 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 151.4671 | µg/mL | Stressed |
| 37 | 1,1,2-Trichloroethane | | 2,513.6 | µg/mL | +/- | 14.6144 | µg/mL | Gravimetric |
| | **CAS #** 79-00-5 | (Lot FGB01) | | | +/- | 151.6581 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0182 | µg/mL | Stressed |
| 38 | 1,3-Dichloropropane | | 2,513.6 | µg/mL | +/- | 14.6144 | µg/mL | Gravimetric |
| | **CAS #** 142-28-9 | (Lot BCBC6265) | | | +/- | 151.6581 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0182 | µg/mL | Stressed |
| 39 | Tetrachloroethene | | 2,507.5 | µg/mL | +/- | 14.5788 | µg/mL | Gravimetric |
| | **CAS #** 127-18-4 | (Lot SHBJ7422) | | | +/- | 151.2886 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.6478 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 40 | dibromochloromethane | | 2,514.8 | µg/mL | +/- | 14.6210 | µg/mL | Gravimetric |
| | **CAS #** 124-48-1 | (Lot MKCM8659) | | | +/- | 151.7260 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0862 | µg/mL | Stressed |
| 41 | 1,2-Dibromoethane (EDB) | | 2,513.9 | µg/mL | +/- | 14.6159 | µg/mL | Gravimetric |
| | **CAS #** 106-93-4 | (Lot BCCF5058) | | | +/- | 151.6732 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0333 | µg/mL | Stressed |
| 42 | Chlorobenzene | | 2,507.9 | µg/mL | +/- | 14.5810 | µg/mL | Gravimetric |
| | **CAS #** 108-90-7 | (Lot SHBL8110) | | | +/- | 151.3112 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.6704 | µg/mL | Stressed |
| 43 | m-Xylene | | 1,260.0 | µg/mL | +/- | 7.3257 | µg/mL | Gravimetric |
| | **CAS #** 108-38-3 | (Lot Q13G020) | | | +/- | 76.0214 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 76.2019 | µg/mL | Stressed |
| 44 | p-Xylene | | 1,258.6 | µg/mL | +/- | 7.3178 | µg/mL | Gravimetric |
| | **CAS #** 106-42-3 | (Lot 10234437) | | | +/- | 75.9384 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 76.1187 | µg/mL | Stressed |
| 45 | Ethylbenzene | | 2,516.0 | µg/mL | +/- | 14.6282 | µg/mL | Gravimetric |
| | **CAS #** 100-41-4 | (Lot SHBM4308) | | | +/- | 151.8014 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1618 | µg/mL | Stressed |
| 46 | 1,1,1,2-Tetrachloroethane | | 2,519.1 | µg/mL | +/- | 14.6464 | µg/mL | Gravimetric |
| | **CAS #** 630-20-6 | (Lot TMWGK) | | | +/- | 151.9900 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3508 | µg/mL | Stressed |
| 47 | o-Xylene | | 2,513.5 | µg/mL | +/- | 14.6134 | µg/mL | Gravimetric |
| | **CAS #** 95-47-6 | (Lot SHBN5105) | | | +/- | 151.6479 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 152.0079 | µg/mL | Stressed |
| 48 | Styrene | | 2,509.1 | µg/mL | +/- | 14.5883 | µg/mL | Gravimetric |
| | **CAS #** 100-42-5 | (Lot MKCP3941) | | | +/- | 151.3866 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7460 | µg/mL | Stressed |
| 49 | Isopropylbenzene (cumene) | | 2,518.5 | µg/mL | +/- | 14.6428 | µg/mL | Gravimetric |
| | **CAS #** 98-82-8 | (Lot Z20D022) | | | +/- | 151.9523 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3130 | µg/mL | Stressed |
| 50 | bromoform | | 2,511.0 | µg/mL | +/- | 14.5992 | µg/mL | Gravimetric |
| | **CAS #** 75-25-2 | (Lot SHBK4455) | | | +/- | 151.5001 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 151.8597 | µg/mL | Stressed |
| 51 | bromodichloromethane | | 2,518.1 | µg/mL | +/- | 14.6406 | µg/mL | Gravimetric |
| | **CAS #** 75-27-4 | (Lot MKCM7156) | | | +/- | 151.9296 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2903 | µg/mL | Stressed |
| 52 | 1,1,2,2-Tetrachloroethane | | 2,515.5 | µg/mL | +/- | 14.6253 | µg/mL | Gravimetric |
| | **CAS #** 79-34-5 | (Lot CFA4D) | | | +/- | 151.7713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1316 | µg/mL | Stressed |
| 53 | 1,2,3-Trichloropropane | | 2,512.5 | µg/mL | +/- | 14.6079 | µg/mL | Gravimetric |
| | **CAS #** 96-18-4 | (Lot 332900) | | | +/- | 151.5903 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9502 | µg/mL | Stressed |
| 54 | trans-1,4-dichloro-2-butene | | 2,511.8 | µg/mL | +/- | 14.6038 | µg/mL | Gravimetric |
| | **CAS #** 110-57-6 | (Lot RD220405A) | | | +/- | 151.5480 | µg/mL | Unstressed |
| | **Purity** 95% | | | | +/- | 151.9078 | µg/mL | Stressed |
| 55 | n-Propylbenzene | | 2,515.6 | µg/mL | +/- | 14.6261 | µg/mL | Gravimetric |
| | **CAS #** 103-65-1 | (Lot MKCN1126) | | | +/- | 151.7788 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1392 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 56 | Bromobenzene | | 2,516.9 | µg/mL | +/- | 14.6333 | µg/mL | Gravimetric |
| | **CAS #** 108-86-1 | (Lot MKBD4032V) | | | +/- | 151.8542 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.2147 | µg/mL | Stressed |
| 57 | 1,3,5-Trimethylbenzene | | 2,512.3 | µg/mL | +/- | 14.6064 | µg/mL | Gravimetric |
| | **CAS #** 108-67-8 | (Lot BCCD0427) | | | +/- | 151.5752 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9350 | µg/mL | Stressed |
| 58 | 2-Chlorotoluene | | 2,510.9 | µg/mL | +/- | 14.5984 | µg/mL | Gravimetric |
| | **CAS #** 95-49-8 | (Lot MKCF5243) | | | +/- | 151.4922 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8519 | µg/mL | Stressed |
| 59 | 4-Chlorotoluene | | 2,513.1 | µg/mL | +/- | 14.6115 | µg/mL | Gravimetric |
| | **CAS #** 106-43-4 | (Lot MKCC8496) | | | +/- | 151.6280 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9880 | µg/mL | Stressed |
| 60 | tert-Butylbenzene | | 2,514.6 | µg/mL | +/- | 14.6202 | µg/mL | Gravimetric |
| | **CAS #** 98-06-6 | (Lot STBD6954V) | | | +/- | 151.7185 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0787 | µg/mL | Stressed |
| 61 | 1,2,4-Trimethylbenzene | | 2,517.1 | µg/mL | +/- | 14.6348 | µg/mL | Gravimetric |
| | **CAS #** 95-63-6 | (Lot WXBC9428V) | | | +/- | 151.8696 | µg/mL | Unstressed |
| | **Purity** 98% | | | | +/- | 152.2302 | µg/mL | Stressed |
| 62 | sec-Butylbenzene | | 2,519.3 | µg/mL | +/- | 14.6471 | µg/mL | Gravimetric |
| | **CAS #** 135-98-8 | (Lot MKCN2920) | | | +/- | 151.9975 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.3584 | µg/mL | Stressed |
| 63 | p-Isopropyltoluene (p-Cymene) | | 2,512.0 | µg/mL | +/- | 14.6050 | µg/mL | Gravimetric |
| | **CAS #** 99-87-6 | (Lot MKCP6638) | | | +/- | 151.5601 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.9199 | µg/mL | Stressed |
| 64 | 1,3-Dichlorobenzene | | 2,515.5 | µg/mL | +/- | 14.6253 | µg/mL | Gravimetric |
| | **CAS #** 541-73-1 | (Lot BCBZ7498) | | | +/- | 151.7713 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.1316 | µg/mL | Stressed |
| 65 | 1,4-Dichlorobenzene | | 2,513.4 | µg/mL | +/- | 14.6130 | µg/mL | Gravimetric |
| | **CAS #** 106-46-7 | (Lot MKBS4401V) | | | +/- | 151.6431 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.0031 | µg/mL | Stressed |
| 66 | n-Butylbenzene | | 2,511.0 | µg/mL | +/- | 14.5992 | µg/mL | Gravimetric |
| | **CAS #** 104-51-8 | (Lot 09418JJ) | | | +/- | 151.4998 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8594 | µg/mL | Stressed |
| 67 | 1,2-Dichlorobenzene | | 2,511.4 | µg/mL | +/- | 14.6014 | µg/mL | Gravimetric |
| | **CAS #** 95-50-1 | (Lot SHBN3835) | | | +/- | 151.5224 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8821 | µg/mL | Stressed |
| 68 | 1,2-Dibromo-3-chloropropane | | 2,512.4 | µg/mL | +/- | 14.6074 | µg/mL | Gravimetric |
| | **CAS #** 96-12-8 | (Lot HBMVB) | | | +/- | 151.5855 | µg/mL | Unstressed |
| | **Purity** 97% | | | | +/- | 151.9454 | µg/mL | Stressed |
| 69 | 1,2,4-Trichlorobenzene | | 2,510.4 | µg/mL | +/- | 14.5955 | µg/mL | Gravimetric |
| | **CAS #** 120-82-1 | (Lot SHBM0526) | | | +/- | 151.4620 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.8216 | µg/mL | Stressed |
| 70 | Hexachlorobutadiene | | 2,509.3 | µg/mL | +/- | 14.5890 | µg/mL | Gravimetric |
| | **CAS #** 87-68-3 | (Lot X05J) | | | +/- | 151.3942 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 151.7536 | µg/mL | Stressed |
| 71 | Naphthalene | | 2,520.6 | µg/mL | +/- | 14.6551 | µg/mL | Gravimetric |
| | **CAS #** 91-20-3 | (Lot MKCH0219) | | | +/- | 152.0805 | µg/mL | Unstressed |
| | **Purity** 99% | | | | +/- | 152.4415 | µg/mL | Stressed |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 72 | 1,2,3-Trichlorobenzene<br>**CAS #** 87-61-6<br>**Purity** 99% | (Lot MKBX7627V) | 2,513.0 | µg/mL | +/- 14.6108<br>+/- 151.6204<br>+/- 151.9804 | µg/mL<br>µg/mL<br>µg/mL | Gravimetric<br>Unstressed<br>Stressed |

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

**Column:**
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

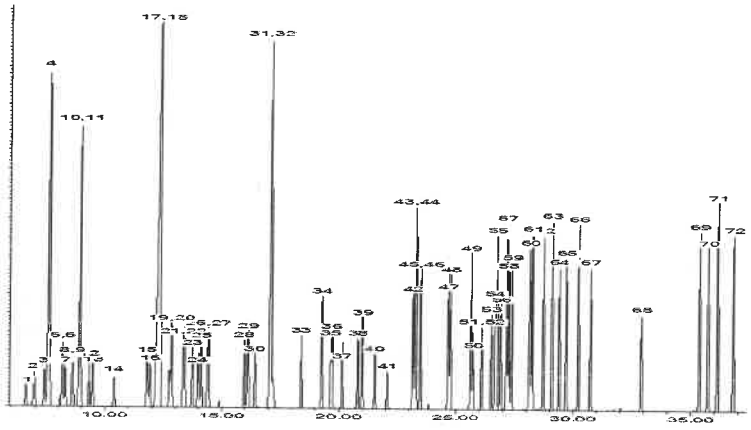
**Carrier Gas:**
helium-constant pressure 30 psi

**Temp. Program:**
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

**Inj. Temp:**
200°C

**Det. Temp:**
250°C

**Det. Type:**
MSD




This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

**Date Mixed:** 31-Mar-2022 **Balance:** B707717271

Fang-Yun Lo - QC Analyst

**Date Passed:** 21-Apr-2022

**Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397**

# Reagent

# VM571992S_00009

VM 571992.SEC — 00009 Rec'd 6/19

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: 1-814-353-1300
Fax: 1-814-353-1309

www.restek.com

## CERTIFIED REFERENCE MATERIAL

ilac-MRA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

# Certificate of Analysis

***chromatographic plus***

**FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.**

*This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.*

**Catalog No. :** 571992.SEC **Lot No.:** A0195252

**Description :** 8260 List 1 / Std #1 MegaMix (2017)

8260 List 1 / Std #1 MegaMix (2017) 1,250-62,500µg/mL, P&T Methanol, 1mL/ampul

**Container Size :** 2 mL **Pkg Amt:** > 1 mL

**Expiration Date :** August 31, 2025 **Storage:** 0°C or colder

**Ship:** Ambient

CERTIFIED VALUES

| Elution Order | Compound | CAS # | Lot # | Purity | Grav. Conc. (weight/volume) | Expanded Uncertainty * (95% C.L.; K=2) |
|---|---|---|---|---|---|---|
| 1 | Diethyl ether (ethyl ether) | 60-29-7.SEC | F23X068 | 99% | 2,516.7 µg/mL | +/- 86.9644 |
| 2 | 1,1,2-Trichlorotrifluoroethane (CFC-113) | 76-13-1.SEC | 18342 | 99% | 2,520.0 µg/mL | +/- 87.0795 |
| 3 | 1,1-Dichloroethene | 75-35-4.SEC | 13896500 | 99% | 2,525.0 µg/mL | +/- 87.2523 |
| 4 | tert-Butanol (TBA) | 75-65-0.SEC | DI34O | 99% | 25,129.5 µg/mL | +/- 868.3580 |
| 5 | Methyl acetate | 79-20-9.SEC | UCNEL | 99% | 5,029.0 µg/mL | +/- 173.7790 |
| 6 | Iodomethane (methyl iodide) | 74-88-4.SEC | Y25A027 | 99% | 2,521.7 µg/mL | +/- 87.1371 |
| 7 | Allyl chloride ( 3-chloropropene ) | 107-05-1.SEC | RD210329 | 99% | 2,518.2 µg/mL | +/- 87.0162 |
| 8 | Methylene chloride (dichloromethane) | 75-09-2.SEC | FGM02 | 99% | 2,516.7 µg/mL | +/- 86.9644 |
| 9 | Carbon disulfide | 75-15-0.SEC | MKBL1376V | 99% | 2,511.7 µg/mL | +/- 86.7916 |
| 10 | Acrylonitrile | 107-13-1.SEC | V54AD | 99% | 25,200.3 µg/mL | +/- 870.8057 |
| 11 | Methyl-tert-butyl ether ( MTBE ) | 1634-04-4.SEC | CDCQG | 99% | 2,517.3 µg/mL | +/- 86.9874 |
| 12 | cis-1,2-Dichloroethene | 156-59-2.SEC | YZO5O | 99% | 2,515.3 µg/mL | +/- 86.9183 |
| 13 | n-Hexane (C6) | 110-54-3.SEC | 10188491 | 99% | 2,514.7 µg/mL | +/- 86.8953 |
| 14 | 1,1-Dichloroethane | 75-34-3.SEC | 1026.30-3 | 98% | 2,512.6 µg/mL | +/- 86.8223 |
| 15 | 2,2-Dichloropropane | 594-20-7.SEC | GI01 | 99% | 2,521.5 µg/mL | +/- 87.1314 |
| 16 | trans-1,2-Dichloroethene | 156-60-5.SEC | L5QOH | 99% | 2,525.0 µg/mL | +/- 87.2523 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 17 | Isobutanol (2-Methyl-1-propanol) | 78-83-1.SEC PH2XK | 99% | 62,830.8 | µg/mL | +/- 2,171.1398 |
| 18 | Chloroform | 67-66-3.SEC 1297547 | 99% | 2,511.7 | µg/mL | +/- 86.7916 |
| 19 | Bromochloromethane | 74-97-5 * 230206JLM | 99% | 2,515.7 | µg/mL | +/- 86.9298 |
| 20 | Tetrahydrofuran | 109-99-9.SEC 3NYHE | 99% | 5,018.5 | µg/mL | +/- 173.4162 |
| 21 | 1,1,1-Trichloroethane | 71-55-6.SEC 13891800 | 99% | 2,506.5 | µg/mL | +/- 86.6130 |
| 22 | Cyclohexane | 110-82-7.SEC YADRA | 99% | 2,523.3 | µg/mL | +/- 87.1947 |
| 23 | 1,1-Dichloropropene | 563-58-6.SEC 556500 | 99% | 2,520.5 | µg/mL | +/- 87.0968 |
| 24 | Carbon tetrachloride | 56-23-5.SEC 11466 | 99% | 2,520.5 | µg/mL | +/- 87.0968 |
| 25 | n-Heptane (C7) | 142-82-5.SEC TFHUC | 99% | 2,516.5 | µg/mL | +/- 86.9586 |
| 26 | 1,2-Dichloroethane | 107-06-2.SEC 00016165 | 99% | 2,519.8 | µg/mL | +/- 87.0738 |
| 27 | Benzene | 71-43-2.SEC 101960P29K | 99% | 2,518.8 | µg/mL | +/- 87.0392 |
| 28 | Trichloroethene | 79-01-6.SEC H04X050 | 99% | 2,524.3 | µg/mL | +/- 87.2293 |
| 29 | Methylcyclohexane | 108-87-2.SEC Q02QG | 99% | 2,515.8 | µg/mL | +/- 86.9356 |
| 30 | 1,2-Dichloropropane | 78-87-5.SEC ERRBI-RH | 99% | 2,516.8 | µg/mL | +/- 86.9701 |
| 31 | 1,4-Dioxane | 123-91-1.SEC QHRWO | 99% | 50,137.2 | µg/mL | +/- 1,732.5061 |
| 32 | Dibromomethane | 74-95-3.SEC MOKKJ | 99% | 2,516.3 | µg/mL | +/- 86.9528 |
| 33 | cis-1,3-Dichloropropene | 10061-01-5.SEC ZLXJ-TJ | 99% | 2,502.8 | µg/mL | +/- 86.4863 |
| 34 | Toluene | 108-88-3.SEC YND2B-BD | 99% | 2,522.2 | µg/mL | +/- 87.1544 |
| 35 | Ethyl methacrylate | 97-63-2.SEC AQSPO | 99% | 2,510.8 | µg/mL | +/- 86.7628 |
| 36 | trans-1,3-Dichloropropene | 10061-02-6.SEC DMSL | 98% | 2,517.1 | µg/mL | +/- 86.9804 |
| 37 | 1,1,2-Trichloroethane | 79-00-5.SEC 9245400 | 99% | 2,512.2 | µg/mL | +/- 86.8089 |
| 38 | 1,3-Dichloropropane | 142-28-9.SEC IQCON | 99% | 2,519.3 | µg/mL | +/- 87.0565 |
| 39 | Tetrachloroethene | 127-18-4.SEC F09W014 | 99% | 2,521.3 | µg/mL | +/- 87.1256 |
| 40 | Dibromochloromethane | 124-48-1.SEC 10234064 | 99% | 2,517.5 | µg/mL | +/- 86.9932 |
| 41 | 1,2-Dibromoethane (EDB) | 106-93-4.SEC 050675P15E | 99% | 2,518.3 | µg/mL | +/- 87.0220 |
| 42 | Chlorobenzene | 108-90-7.SEC 1161936 | 99% | 2,515.8 | µg/mL | +/- 86.9356 |
| 43 | m-Xylene | 108-38-3.SEC 7ZV6F | 99% | 1,255.3 | µg/mL | +/- 43.3814 |
| 44 | p-Xylene | 106-42-3.SEC D6UOA | 99% | 1,260.3 | µg/mL | +/- 43.5541 |
| 45 | Ethylbenzene | 100-41-4.SEC PI4SE | 99% | 2,517.7 | µg/mL | +/- 86.9989 |
| 46 | 1,1,1,2-Tetrachloroethane | 630-20-6.SEC 13789800 | 99% | 2,517.5 | µg/mL | +/- 86.9932 |
| 47 | o-Xylene | 95-47-6.SEC UJ6RI | 99% | 2,515.8 | µg/mL | +/- 86.9356 |
| 48 | Styrene | 100-42-5.SEC QGQ7F | 99% | 2,521.3 | µg/mL | +/- 87.1256 |
| 49 | Isopropylbenzene (cumene) | 98-82-8.SEC 7P24L | 99% | 2,515.0 | µg/mL | +/- 86.9068 |
| 50 | Bromoform | 75-25-2.SEC 13723500 | 99% | 2,522.5 | µg/mL | +/- 87.1659 |
| 51 | Bromodichloromethane | 75-27-4.SEC 28128 | 99% | 2,524.2 | µg/mL | +/- 87.2235 |
| 52 | 1,1,2,2-Tetrachloroethane | 79-34-5.SEC BCCD5088 | 99% | 2,523.7 | µg/mL | +/- 87.2063 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 53 | 1,2,3-Trichloropropane | 96-18-4.SEC 6V2ED | 99% | 2,522.2 | µg/mL | +/- 87.1544 |
| 54 | trans-1,4-Dichloro-2-butene | 110-57-6.SEC RD230316RSR | 96% | 2,517.0 | µg/mL | +/- 86.9745 |
| 55 | n-Propylbenzene | 103-65-1.SEC XCGEC | 99% | 2,518.8 | µg/mL | +/- 87.0392 |
| 56 | Bromobenzene | 108-86-1.SEC 2FUHG-EM | 99% | 2,518.3 | µg/mL | +/- 87.0220 |
| 57 | 1,3,5-Trimethylbenzene | 108-67-8.SEC GI2SM | 99% | 2,514.3 | µg/mL | +/- 86.8837 |
| 58 | 2-Chlorotoluene | 95-49-8.SEC BRHPM | 99% | 2,515.7 | µg/mL | +/- 86.9298 |
| 59 | 4-Chlorotoluene | 106-43-4.SEC S5SKD | 99% | 2,518.8 | µg/mL | +/- 87.0392 |
| 60 | tert-Butylbenzene | 98-06-6.SEC D6OHC | 99% | 2,522.0 | µg/mL | +/- 87.1487 |
| 61 | 1,2,4-Trimethylbenzene | 95-63-6.SEC JHZDD | 99% | 2,517.3 | µg/mL | +/- 86.9874 |
| 62 | sec-Butylbenzene | 135-98-8.SEC O4HRF | 99% | 2,522.0 | µg/mL | +/- 87.1487 |
| 63 | 4-Isopropyltoluene (p-cymene) | 99-87-6.SEC 13889300 | 98% | 2,518.1 | µg/mL | +/- 87.0142 |
| 64 | 1,3-Dichlorobenzene | 541-73-1.SEC ZA2ZI | 99% | 2,515.0 | µg/mL | +/- 86.9068 |
| 65 | 1,4-Dichlorobenzene | 106-46-7.SEC J5GVD | 99% | 2,522.5 | µg/mL | +/- 87.1659 |
| 66 | n-Butylbenzene | 104-51-8.SEC MMPGA | 99% | 2,523.7 | µg/mL | +/- 87.2063 |
| 67 | 1,2-Dichlorobenzene | 95-50-1.SEC R6QDM | 99% | 2,512.0 | µg/mL | +/- 86.8031 |
| 68 | 1,2-Dibromo-3-chloropropane | 96-12-8.SEC Q135-105 | 99% | 2,517.7 | µg/mL | +/- 86.9989 |
| 69 | 1,2,4-Trichlorobenzene | 120-82-1.SEC IGLFA | 99% | 2,515.7 | µg/mL | +/- 86.9298 |
| 70 | Hexachlorobutadiene | 87-68-3.SEC 13889400 | 97% | 2,520.4 | µg/mL | +/- 87.0928 |
| 71 | Naphthalene | 91-20-3.SEC AM5NG | 99% | 2,520.0 | µg/mL | +/- 87.0795 |
| 72 | 1,2,3-Trichlorobenzene | 87-61-6.SEC A0043055 | 99% | 2,517.8 | µg/mL | +/- 87.0047 |

* Expanded Uncertainty displayed in same units as Grav. Conc.

**Solvent:** P&T Methanol
**CAS #** 67-56-1
**Purity** 99%

*** Restek is unable to identify a reliable and/or acceptable second source for this material - the same batch of neat material may have been used to produce both the primary and secondary standard. The primary and secondary standards were prepared using different equipment and personnel.**

# 8260D

## Volatile Organic Compounds by GC/MS

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.18(mm)

| Client Sample ID | Lab Sample ID | DBFM # | DCA # | TOL # | BFB # |
|---|---|---|---|---|---|
| W-2-S/091223/ | 240-191867-1 | 104 | 95 | 92 | 84 |
| W-4-S/091223/ | 240-191867-2 | 96 | 92 | 94 | 84 |
| W-3-S/091223/ | 240-191867-3 | 100 | 94 | 93 | 86 |
| HR-17/091223/ | 240-191867-4 | 99 | 89 | 95 | 82 |
| DUP-01/091223/ | 240-191867-5 | 104 | 100 | 89 | 88 |
| EB-02/091223/ | 240-191867-6 | 108 | 102 | 95 | 85 |
| | MB 240-588192/7 | 95 | 95 | 97 | 84 |
| | LCS 240-588192/4 | 102 | 93 | 94 | 84 |
| W-2-S/091223/ MS | 240-191867-1 MS | 101 | 90 | 95 | 88 |
| W-2-S/091223/ MSD | 240-191867-1 MSD | 103 | 86 | 91 | 88 |

| | QC LIMITS |
|---|---|
| DBFM = Dibromofluoromethane (Surr) | 73-120 |
| DCA = 1,2-Dichloroethane-d4 (Surr) | 62-137 |
| TOL = Toluene-d8 (Surr) | 78-122 |
| BFB = 4-Bromofluorobenzene (Surr) | 56-136 |

# Column to be used to flag recovery values

FORM II 8260D

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1795307.D

Lab ID: LCS 240-588192/4 Client ID:

| COMPOUND | SPIKE ADDED (ug/L) | LCS CONCENTRATION (ug/L) | LCS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 25.0 | 25.2 | 101 | 64-131 | |
| 1,1-Dichloroethane | 25.0 | 26.1 | 105 | 72-127 | |
| 1,1-Dichloroethene | 25.0 | 27.4 | 109 | 63-134 | |
| Benzene | 25.0 | 27.2 | 109 | 77-123 | |
| cis-1,2-Dichloroethene | 25.0 | 26.1 | 105 | 77-123 | |
| Ethylbenzene | 25.0 | 26.7 | 107 | 80-121 | |
| m-Xylene & p-Xylene | 25.0 | 27.2 | 109 | 80-120 | |
| o-Xylene | 25.0 | 26.4 | 105 | 80-123 | |
| Tetrachloroethene | 25.0 | 27.6 | 110 | 76-123 | |
| Toluene | 25.0 | 25.5 | 102 | 80-123 | |
| trans-1,2-Dichloroethene | 25.0 | 26.6 | 107 | 75-124 | |
| Trichloroethene | 25.0 | 30.5 | 122 | 70-122 | |
| Vinyl chloride | 12.5 | 11.7 | 94 | 60-144 | |
| Xylenes, Total | 50.0 | 53.6 | 107 | 80-121 | |

# Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1795323.D

Lab ID: 240-191867-1 MS Client ID: W-2-S/091223/ MS

| COMPOUND | SPIKE ADDED (ug/L) | SAMPLE CONCENTRATION (ug/L) | MS CONCENTRATION (ug/L) | MS % REC | QC LIMITS REC | # |
|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 25.0 | 0.70 J | 24.3 | 95 | 60-130 | |
| 1,1-Dichloroethane | 25.0 | 1.0 U | 22.8 | 91 | 68-125 | |
| 1,1-Dichloroethene | 25.0 | 1.0 U | 26.3 | 105 | 56-135 | |
| Benzene | 25.0 | 1.0 U | 25.1 | 101 | 64-128 | |
| cis-1,2-Dichloroethene | 25.0 | 1.1 | 25.5 | 98 | 66-128 | |
| Ethylbenzene | 25.0 | 1.0 U | 26.0 | 104 | 67-127 | |
| m-Xylene & p-Xylene | 25.0 | 2.0 U | 24.4 | 98 | 71-123 | |
| o-Xylene | 25.0 | 1.0 U | 24.5 | 98 | 70-125 | |
| Tetrachloroethene | 25.0 | 12 | 41.5 | 119 | 62-131 | |
| Toluene | 25.0 | 1.0 U | 24.1 | 97 | 58-135 | |
| trans-1,2-Dichloroethene | 25.0 | 1.0 U | 24.6 | 98 | 56-136 | |
| Trichloroethene | 25.0 | 6.3 | 35.0 | 115 | 61-124 | |
| Vinyl chloride | 12.5 | 1.0 U | 11.5 | 92 | 43-157 | |
| Xylenes, Total | 50.0 | 2.0 U | 48.9 | 98 | 71-123 | |

# Column to be used to flag recovery and RPD values

FORM III 8260D

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 1795324.D

Lab ID: 240-191867-1 MSD Client ID: W-2-S/091223/ MSD

| COMPOUND | SPIKE ADDED (ug/L) | MSD CONCENTRATION (ug/L) | MSD % REC | % RPD | QC LIMITS RPD | QC LIMITS REC | # |
|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 25.0 | 23.1 | 89 | 5 | 17 | 60-130 | |
| 1,1-Dichloroethane | 25.0 | 22.7 | 91 | 1 | 13 | 68-125 | |
| 1,1-Dichloroethene | 25.0 | 24.3 | 97 | 8 | 26 | 56-135 | |
| Benzene | 25.0 | 23.9 | 96 | 5 | 14 | 64-128 | |
| cis-1,2-Dichloroethene | 25.0 | 23.5 | 90 | 8 | 14 | 66-128 | |
| Ethylbenzene | 25.0 | 26.0 | 104 | 0 | 15 | 67-127 | |
| m-Xylene & p-Xylene | 25.0 | 24.4 | 98 | 0 | 16 | 71-123 | |
| o-Xylene | 25.0 | 24.3 | 97 | 1 | 15 | 70-125 | |
| Tetrachloroethene | 25.0 | 38.9 | 108 | 7 | 20 | 62-131 | |
| Toluene | 25.0 | 23.2 | 93 | 4 | 14 | 58-135 | |
| trans-1,2-Dichloroethene | 25.0 | 23.3 | 93 | 5 | 15 | 56-136 | |
| Trichloroethene | 25.0 | 31.7 | 102 | 10 | 15 | 61-124 | |
| Vinyl chloride | 12.5 | 11.1 | 89 | 4 | 24 | 43-157 | |
| Xylenes, Total | 50.0 | 48.7 | 97 | 0 | 15 | 71-123 | |

# Column to be used to flag recovery and RPD values

FORM III 8260D

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab File ID: 1795310.D Lab Sample ID: MB 240-588192/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: A3UX17 Date Analyzed: 09/22/2023 11:34

GC Column: DB-624 ID: 0.18(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED |
|---|---|---|---|
| | LCS 240-588192/4 | 1795307.D | 09/22/2023 10:23 |
| W-2-S/091223/ | 240-191867-1 | 1795322.D | 09/22/2023 16:14 |
| W-2-S/091223/ MS | 240-191867-1 MS | 1795323.D | 09/22/2023 16:38 |
| W-2-S/091223/ MSD | 240-191867-1 MSD | 1795324.D | 09/22/2023 17:01 |
| W-4-S/091223/ | 240-191867-2 | 1795325.D | 09/22/2023 17:24 |
| W-3-S/091223/ | 240-191867-3 | 1795326.D | 09/22/2023 17:48 |
| HR-17/091223/ | 240-191867-4 | 1795327.D | 09/22/2023 18:12 |
| DUP-01/091223/ | 240-191867-5 | 1795328.D | 09/22/2023 18:35 |
| EB-02/091223/ | 240-191867-6 | 1795329.D | 09/22/2023 18:58 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab File ID: BFB17259.D BFB Injection Date: 08/09/2023

Instrument ID: A3UX17 BFB Injection Time: 13:17

Analysis Batch No.: 583404

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 33.9 | |
| 75 | 30.0 - 60.0 % of mass 95 | 47.6 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 6.1 | |
| 173 | Less than 2.0 % of mass 174 | 0.4 | (0.6) 1 |
| 174 | Greater than 50% of mass 95 | 78.0 | |
| 175 | 5.0 - 9.0 % of mass 174 | 5.4 | (6.9) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 74.2 | (95.1) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 4.5 | (6.1) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | IC 240-583404/3 | 1794280.D | 08/09/2023 | 14:24 |
| | IC 240-583404/4 | 1794281.D | 08/09/2023 | 14:47 |
| | IC 240-583404/5 | 1794282.D | 08/09/2023 | 15:10 |
| | IC 240-583404/6 | 1794283.D | 08/09/2023 | 15:33 |
| | IC 240-583404/7 | 1794284.D | 08/09/2023 | 15:57 |
| | ICIS 240-583404/8 | 1794285.D | 08/09/2023 | 16:20 |
| | IC 240-583404/9 | 1794286.D | 08/09/2023 | 16:43 |
| | IC 240-583404/10 | 1794287.D | 08/09/2023 | 17:07 |
| | IC 240-583404/11 | 1794288.D | 08/09/2023 | 17:30 |
| | ICV 240-583404/14 | 1794291.D | 08/09/2023 | 18:40 |
| | ICV 240-583404/28 | 1794305.D | 08/10/2023 | 0:07 |

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab File ID: 17291A.D BFB Injection Date: 09/22/2023

Instrument ID: A3UX17 BFB Injection Time: 09:00

Analysis Batch No.: 588192

| M/E | ION ABUNDANCE CRITERIA | % RELATIVE ABUNDANCE | |
|---|---|---|---|
| 50 | 15.0 - 40.0 % of mass 95 | 37.5 | |
| 75 | 30.0 - 60.0 % of mass 95 | 50.6 | |
| 95 | Base Peak, 100% relative abundance | 100.0 | |
| 96 | 5.0 - 9.0 % of mass 95 | 7.0 | |
| 173 | Less than 2.0 % of mass 174 | 0.5 | (0.5) 1 |
| 174 | Greater than 50% of mass 95 | 92.9 | |
| 175 | 5.0 - 9.0 % of mass 174 | 6.3 | (6.7) 1 |
| 176 | 95.0 - 101.0 % of mass 174 | 90.8 | (97.7) 1 |
| 177 | 5.0 - 9.0 % of mass 176 | 6.1 | (6.7) 2 |

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

| CLIENT SAMPLE ID | LAB SAMPLE ID | LAB FILE ID | DATE ANALYZED | TIME ANALYZED |
|---|---|---|---|---|
| | CCV 240-588192/2 | 1795305.D | 09/22/2023 | 9:37 |
| | CCVIS 240-588192/3 | 1795306.D | 09/22/2023 | 10:00 |
| | LCS 240-588192/4 | 1795307.D | 09/22/2023 | 10:23 |
| | MB 240-588192/7 | 1795310.D | 09/22/2023 | 11:34 |
| W-2-S/091223/ | 240-191867-1 | 1795322.D | 09/22/2023 | 16:14 |
| W-2-S/091223/ MS | 240-191867-1 MS | 1795323.D | 09/22/2023 | 16:38 |
| W-2-S/091223/ MSD | 240-191867-1 MSD | 1795324.D | 09/22/2023 | 17:01 |
| W-4-S/091223/ | 240-191867-2 | 1795325.D | 09/22/2023 | 17:24 |
| W-3-S/091223/ | 240-191867-3 | 1795326.D | 09/22/2023 | 17:48 |
| HR-17/091223/ | 240-191867-4 | 1795327.D | 09/22/2023 | 18:12 |
| DUP-01/091223/ | 240-191867-5 | 1795328.D | 09/22/2023 | 18:35 |
| EB-02/091223/ | 240-191867-6 | 1795329.D | 09/22/2023 | 18:58 |

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Sample No.: ICIS 240-583404/8 Date Analyzed: 08/09/2023 16:20

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 1794285.D Heated Purge: (Y/N) N

Calibration ID: 71476

| | | FB | | CBNZd5 | | DCBd4 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| INITIAL CALIBRATION MID-POINT | | 549461 | 6.56 | 456238 | 9.28 | 235547 | 11.26 |
| UPPER LIMIT | | 1098922 | 7.06 | 912476 | 9.78 | 471094 | 11.76 |
| LOWER LIMIT | | 274731 | 6.06 | 228119 | 8.78 | 117774 | 10.76 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| ICV 240-583404/14 | | 541995 | 6.56 | 447679 | 9.28 | 231326 | 11.26 |
| ICV 240-583404/28 | | 538583 | 6.56 | 432888 | 9.28 | 235388 | 11.26 |
| CCVIS 240-588192/3 | | 480877 | 6.54 | 397033 | 9.28 | 204567 | 11.26 |

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Sample No.: CCVIS 240-588192/3 Date Analyzed: 09/22/2023 10:00

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 1795306.D Heated Purge: (Y/N) N

Calibration ID: 71478

| | | FB | | CBNZd5 | | DCBd4 | |
|---|---|---|---|---|---|---|---|
| | | AREA # | RT # | AREA # | RT # | AREA # | RT # |
| 12/24 HOUR STD | | 480877 | 6.54 | 397033 | 9.28 | 204567 | 11.26 |
| UPPER LIMIT | | 961754 | 7.04 | 794066 | 9.78 | 409134 | 11.76 |
| LOWER LIMIT | | 240439 | 6.04 | 198517 | 8.78 | 102284 | 10.76 |
| LAB SAMPLE ID | CLIENT SAMPLE ID | | | | | | |
| LCS 240-588192/4 | | 484488 | 6.54 | 402587 | 9.28 | 224204 | 11.26 |
| MB 240-588192/7 | | 477941 | 6.56 | 393636 | 9.28 | 208891 | 11.26 |
| 240-191867-1 | W-2-S/091223/ | 436460 | 6.54 | 372319 | 9.28 | 203061 | 11.26 |
| 240-191867-1 MS | W-2-S/091223/ MS | 479471 | 6.54 | 393314 | 9.28 | 208623 | 11.26 |
| 240-191867-1 MSD | W-2-S/091223/ MSD | 551349 | 6.54 | 447752 | 9.28 | 241305 | 11.26 |
| 240-191867-2 | W-4-S/091223/ | 530390 | 6.54 | 447010 | 9.28 | 238701 | 11.26 |
| 240-191867-3 | W-3-S/091223/ | 481370 | 6.54 | 401703 | 9.28 | 208922 | 11.26 |
| 240-191867-4 | HR-17/091223/ | 478519 | 6.54 | 397980 | 9.28 | 204672 | 11.26 |
| 240-191867-5 | DUP-01/091223/ | 463203 | 6.56 | 401700 | 9.28 | 212225 | 11.26 |
| 240-191867-6 | EB-02/091223/ | 426596 | 6.54 | 359575 | 9.28 | 190576 | 11.26 |

FB = Fluorobenzene
CBNZd5 = Chlorobenzene-d5
DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

# Column used to flag values outside QC limits

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: W-2-S/091223/ | Lab Sample ID: 240-191867-1

Matrix: Water | Lab File ID: 1795322.D

Analysis Method: 8260D | Date Collected: 09/12/2023 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 16:14

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 0.70 | J | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.1 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 12 | | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 6.3 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 95 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 84 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 92 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795322.D
Lims ID: 240-191867-C-1
Client ID: W-2-S/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 16:14:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-019
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:16

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 97 | 436460 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 88 | 372319 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 94 | 203061 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 93 | 122835 | 26.0 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 89 | 157074 | 23.7 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 441828 | 23.0 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 93 | 156236 | 20.9 | |
| 11 Vinyl chloride | 62 | | 1.515 | | | | ND | |
| 19 1,1-Dichloroethene | 96 | | 2.749 | | | | ND | |
| 32 trans-1,2-Dichloroethene | 96 | | 3.804 | | | | ND | |
| 35 1,1-Dichloroethane | 63 | | 4.539 | | | | ND | |
| 41 cis-1,2-Dichloroethene | 96 | 5.310 | 5.322 | -0.012 | 38 | 3633 | 1.07 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.820 | 0.012 | 47 | 3201 | 0.7037 | |
| 53 Benzene | 78 | | 6.223 | | | | ND | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 89 | 20158 | 6.28 | |
| 71 Toluene | 91 | | 8.073 | | | | ND | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 93 | 33999 | 11.8 | |
| 85 Ethylbenzene | 106 | | 9.378 | | | | ND | |
| 86 m-Xylene & p-Xylene | 106 | | 9.472 | | | | ND | |
| 87 o-Xylene | 106 | | 9.816 | | | | ND | |
| S 130 Xylenes, Total | 106 | | 16.980 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

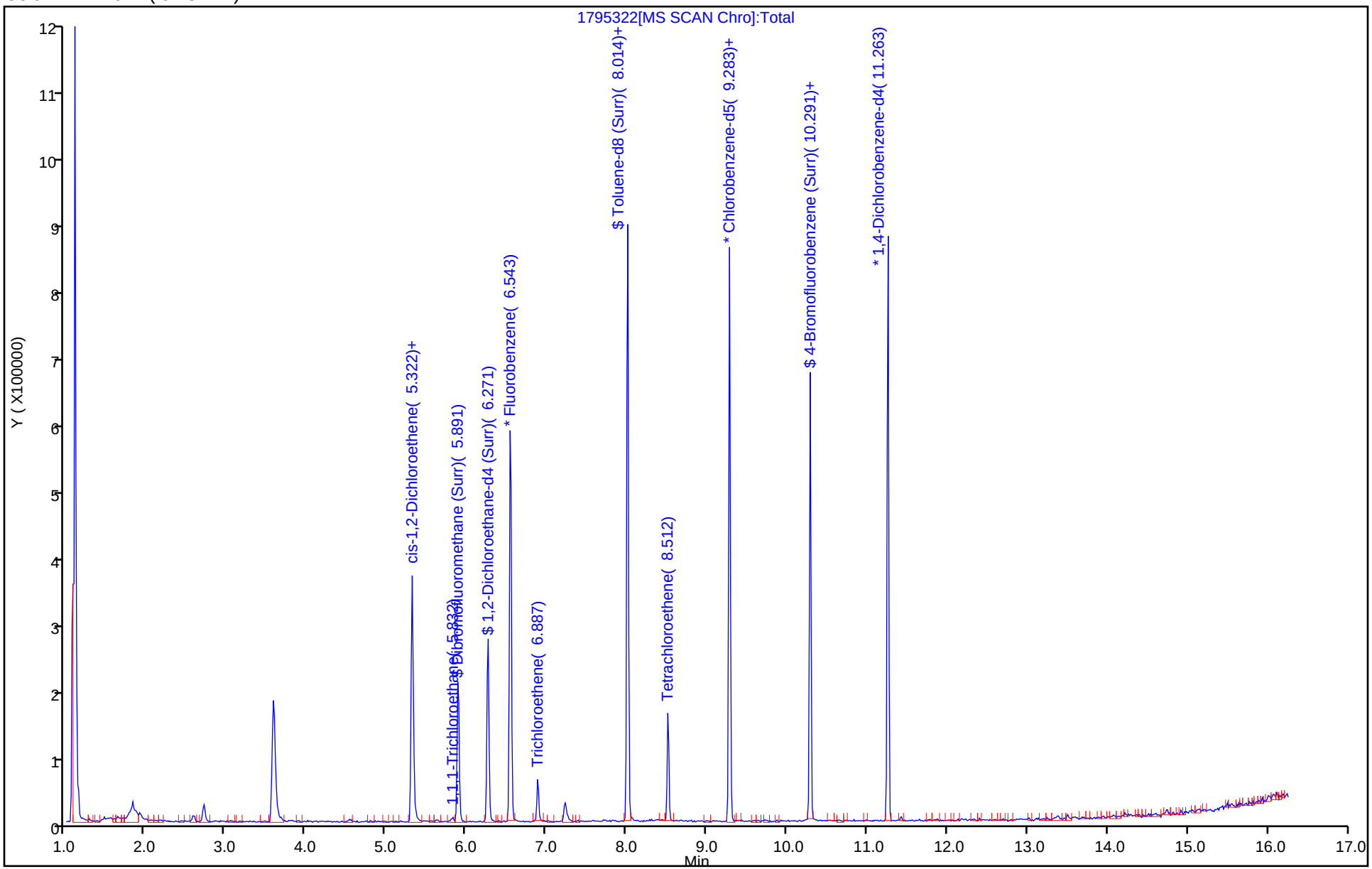
Report Date: 23-Sep-2023 09:18:28 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795322.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 16:14:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-C-1 | Lab Sample ID: | 240-191867-1 | Worklist Smp#: | 19 |
| Client ID: | W-2-S/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 18 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795322.D
Lims ID: 240-191867-C-1
Client ID: W-2-S/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 16:14:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-019
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

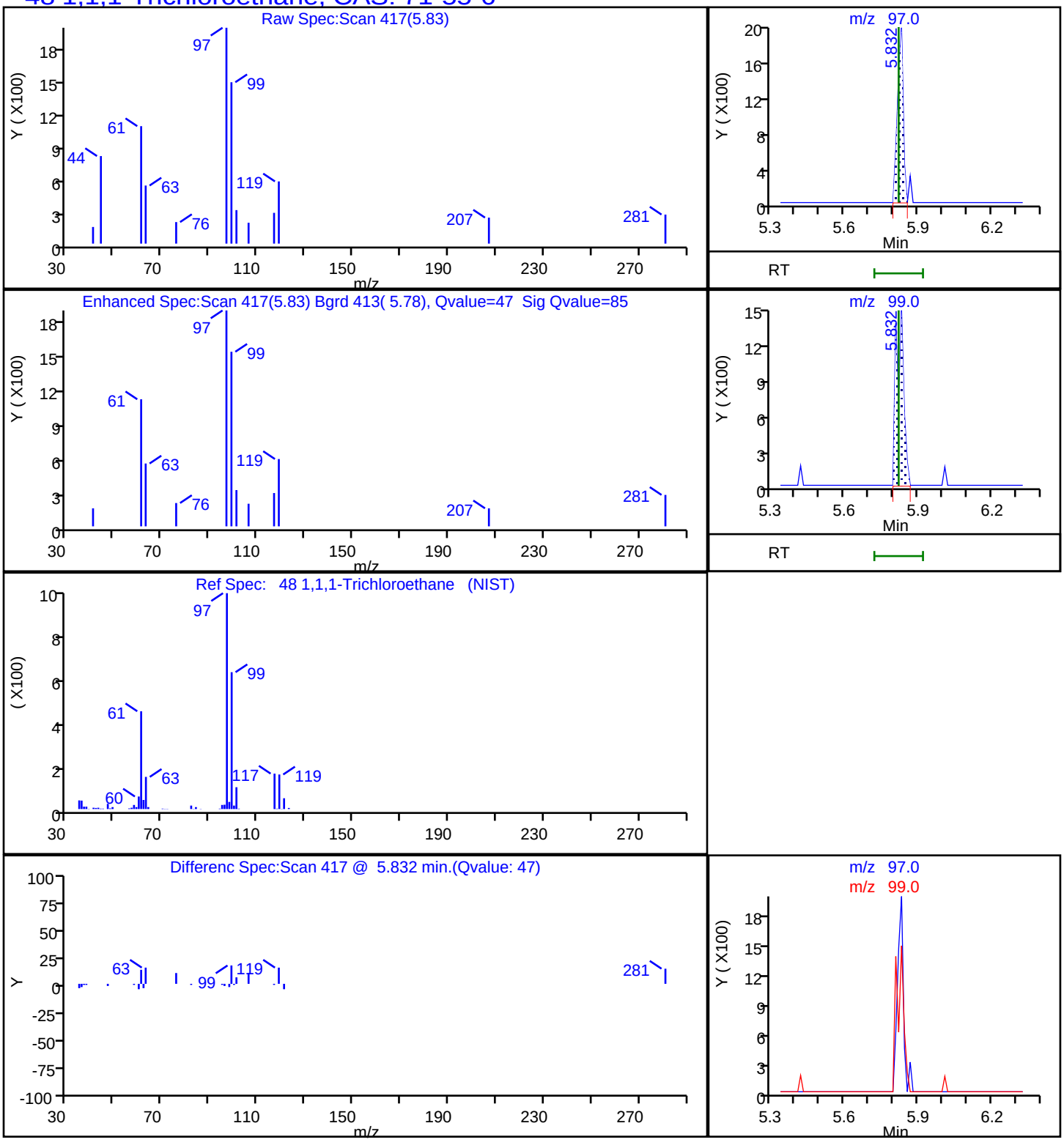
First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:16

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 26.0 | 103.88 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 23.7 | 94.71 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 23.0 | 91.83 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 20.9 | 83.55 |

Eurofins Cleveland

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795322.D | | | | |
| Injection Date: | 22-Sep-2023 16:14:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | 240-191867-C-1 | Lab Sample ID: | 240-191867-1 | | |
| Client ID: | W-2-S/091223/ | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 48 1,1,1-Trichloroethane, CAS: 71-55-6



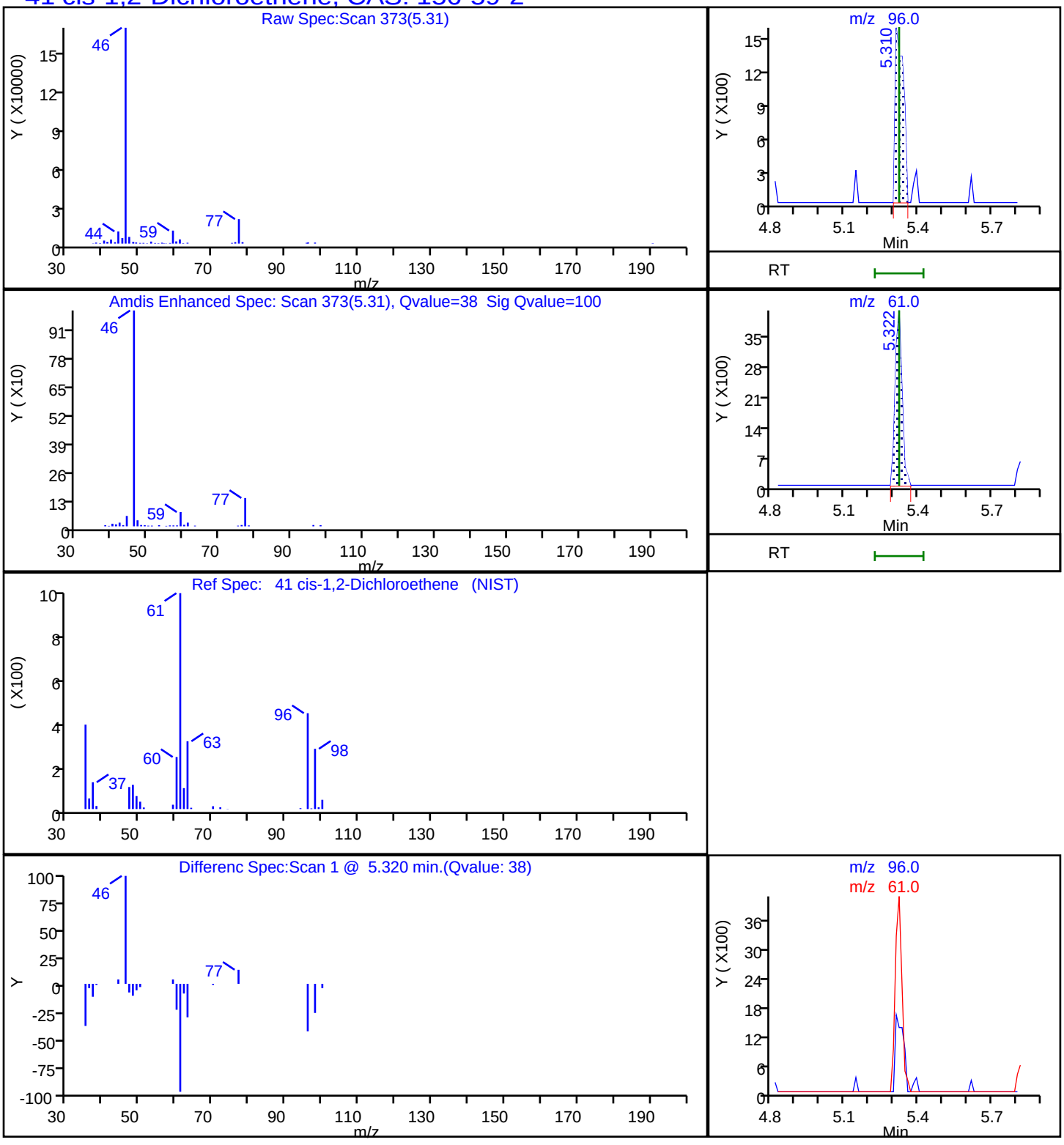
Report Date: 23-Sep-2023 09:18:28 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795322.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 16:14:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | 240-191867-C-1 | Lab Sample ID: | 240-191867-1 | | |
| Client ID: | W-2-S/091223/ | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 18 | Worklist Smp#: | 19 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

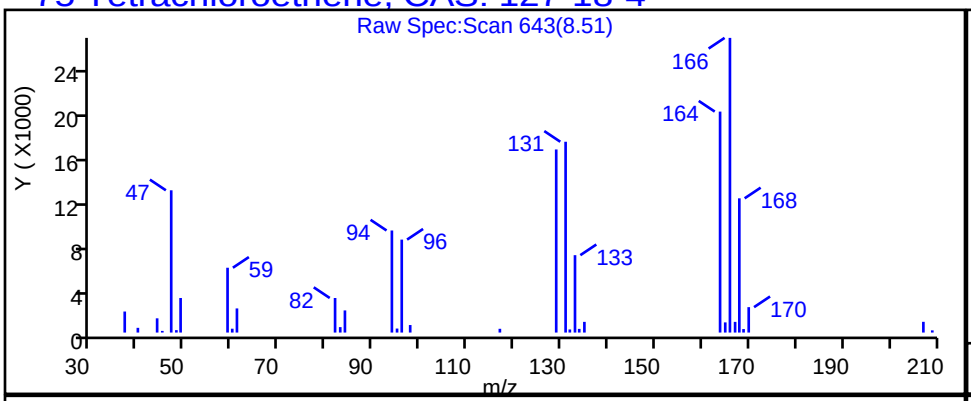
## 41 cis-1,2-Dichloroethene, CAS: 156-59-2

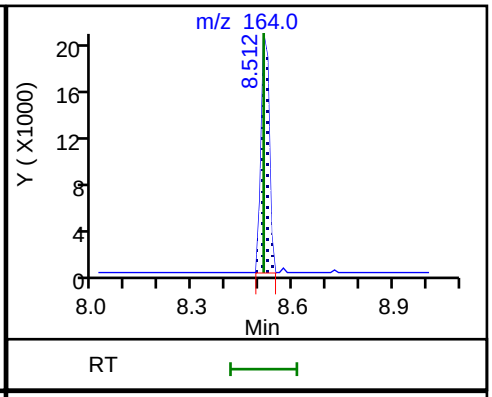


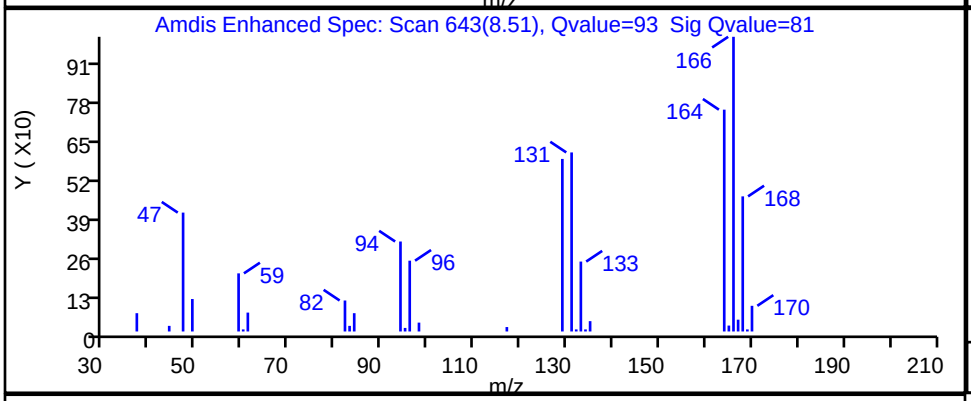
Eurofins Cleveland

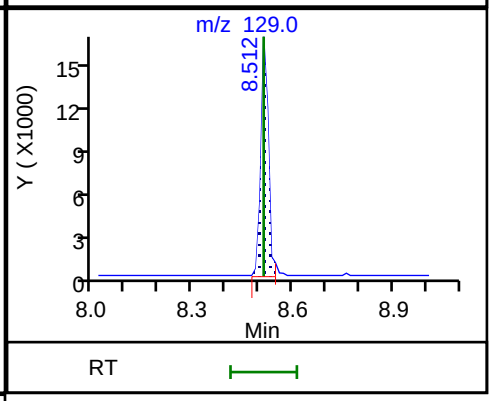
Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795322.D
Injection Date: 22-Sep-2023 16:14:30 Instrument ID: A3UX17
Lims ID: 240-191867-C-1 Lab Sample ID: 240-191867-1
Client ID: W-2-S/091223/
Operator ID: 402279 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

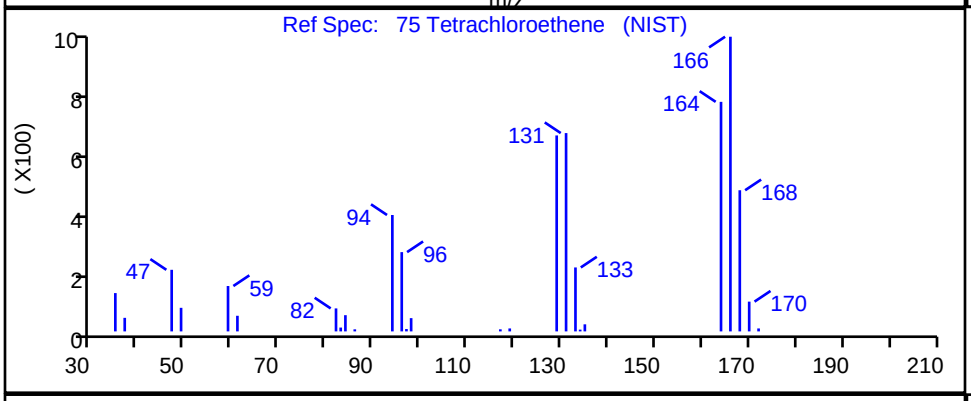
## 75 Tetrachloroethene, CAS: 127-18-4

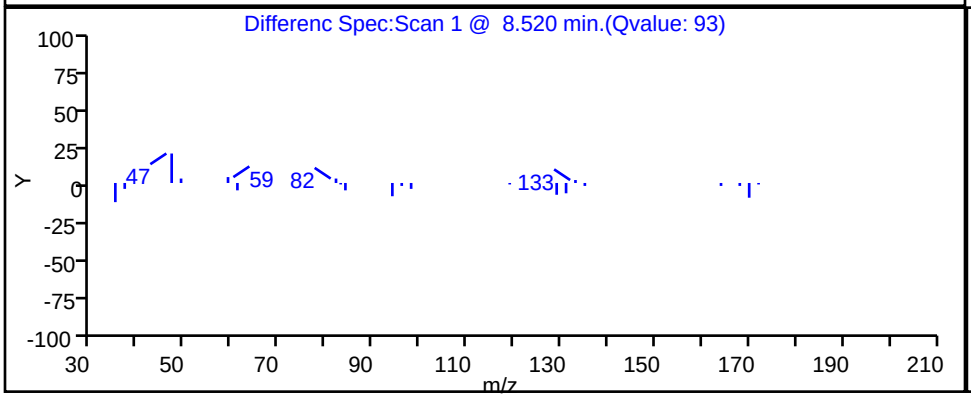


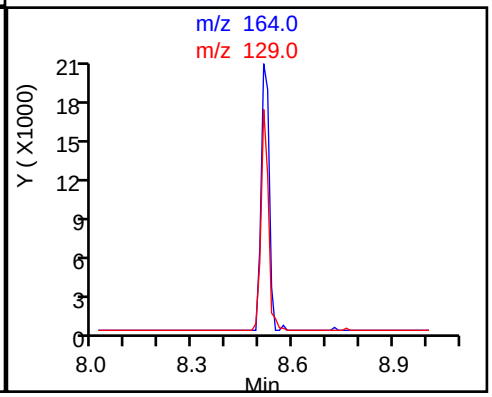



Report Date: 23-Sep-2023 09:18:28 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795322.D

Injection Date: 22-Sep-2023 16:14:30 Instrument ID: A3UX17

Lims ID: 240-191867-C-1 Lab Sample ID: 240-191867-1

Client ID: W-2-S/091223/

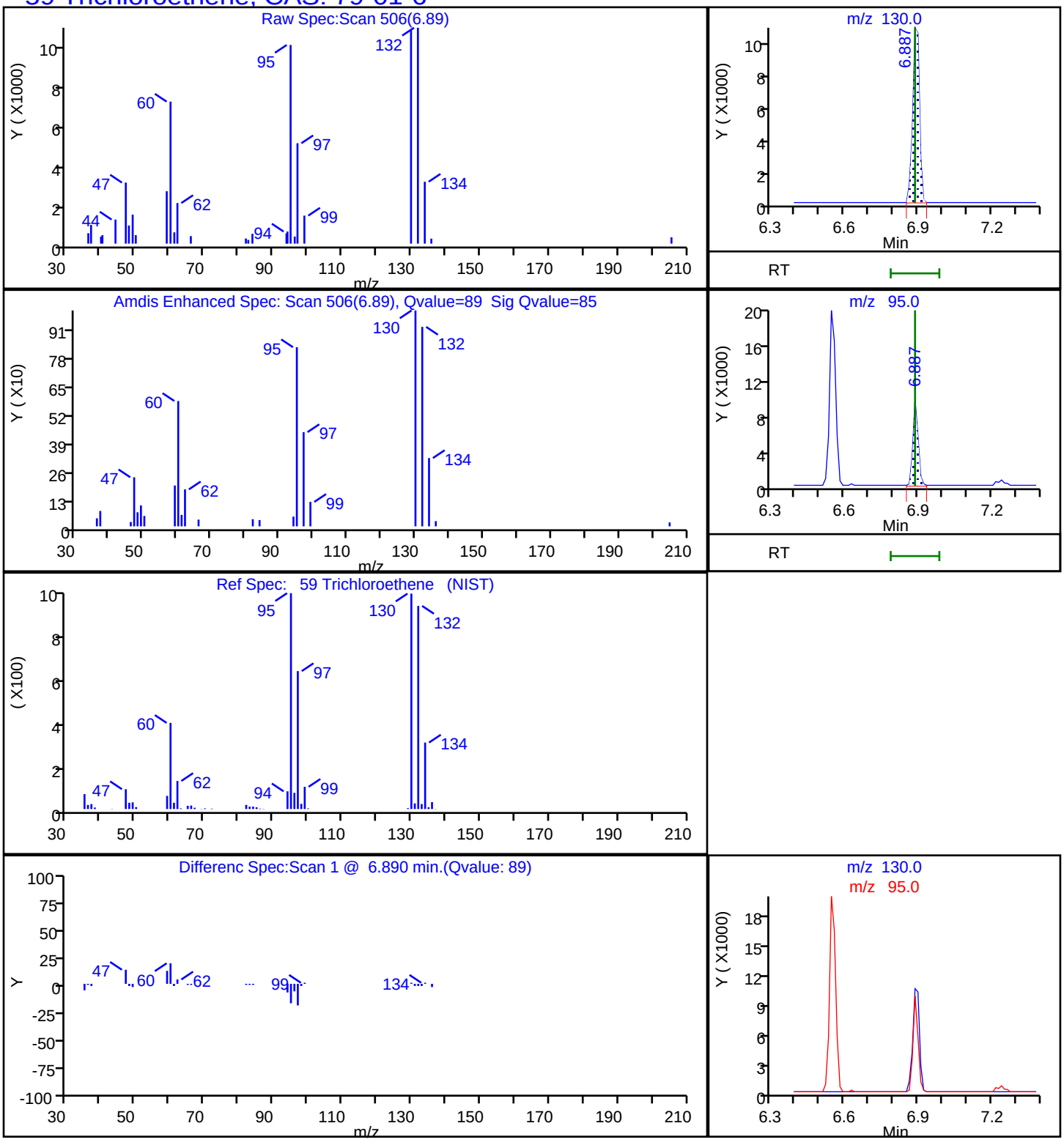
Operator ID: 402279 ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: 8260_17 Limit Group: MSV 8260C ICAL

Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 59 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: W-4-S/091223/ | Lab Sample ID: 240-191867-2

Matrix: Water | Lab File ID: 1795325.D

Analysis Method: 8260D | Date Collected: 09/12/2023 12:40

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 17:24

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 22 | | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 1.0 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 92 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 84 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 96 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795325.D
Lims ID: 240-191867-C-2
Client ID: W-4-S/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 17:24:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-022
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:32

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 98 | 530390 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 88 | 447010 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 94 | 238701 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.891 | 0.012 | 94 | 138246 | 24.1 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.270 | 6.271 | -0.001 | 91 | 185218 | 23.0 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 544211 | 23.6 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | -0.001 | 94 | 188814 | 21.0 | |
| 11 Vinyl chloride | 62 | | 1.515 | | | | ND | |
| 19 1,1-Dichloroethene | 96 | | 2.749 | | | | ND | |
| 32 trans-1,2-Dichloroethene | 96 | | 3.804 | | | | ND | |
| 35 1,1-Dichloroethane | 63 | | 4.539 | | | | ND | |
| 41 cis-1,2-Dichloroethene | 96 | | 5.322 | | | | ND | |
| 48 1,1,1-Trichloroethane | 97 | 5.820 | 5.820 | 0.000 | 81 | 5702 | 1.03 | |
| 53 Benzene | 78 | | 6.223 | | | | ND | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 78 | 4068 | 1.04 | |
| 71 Toluene | 91 | | 8.073 | | | | ND | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 96 | 75269 | 21.8 | |
| 85 Ethylbenzene | 106 | | 9.378 | | | | ND | |
| 86 m-Xylene & p-Xylene | 106 | | 9.472 | | | | ND | |
| 87 o-Xylene | 106 | | 9.816 | | | | ND | |
| S 130 Xylenes, Total | 106 | | 16.980 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

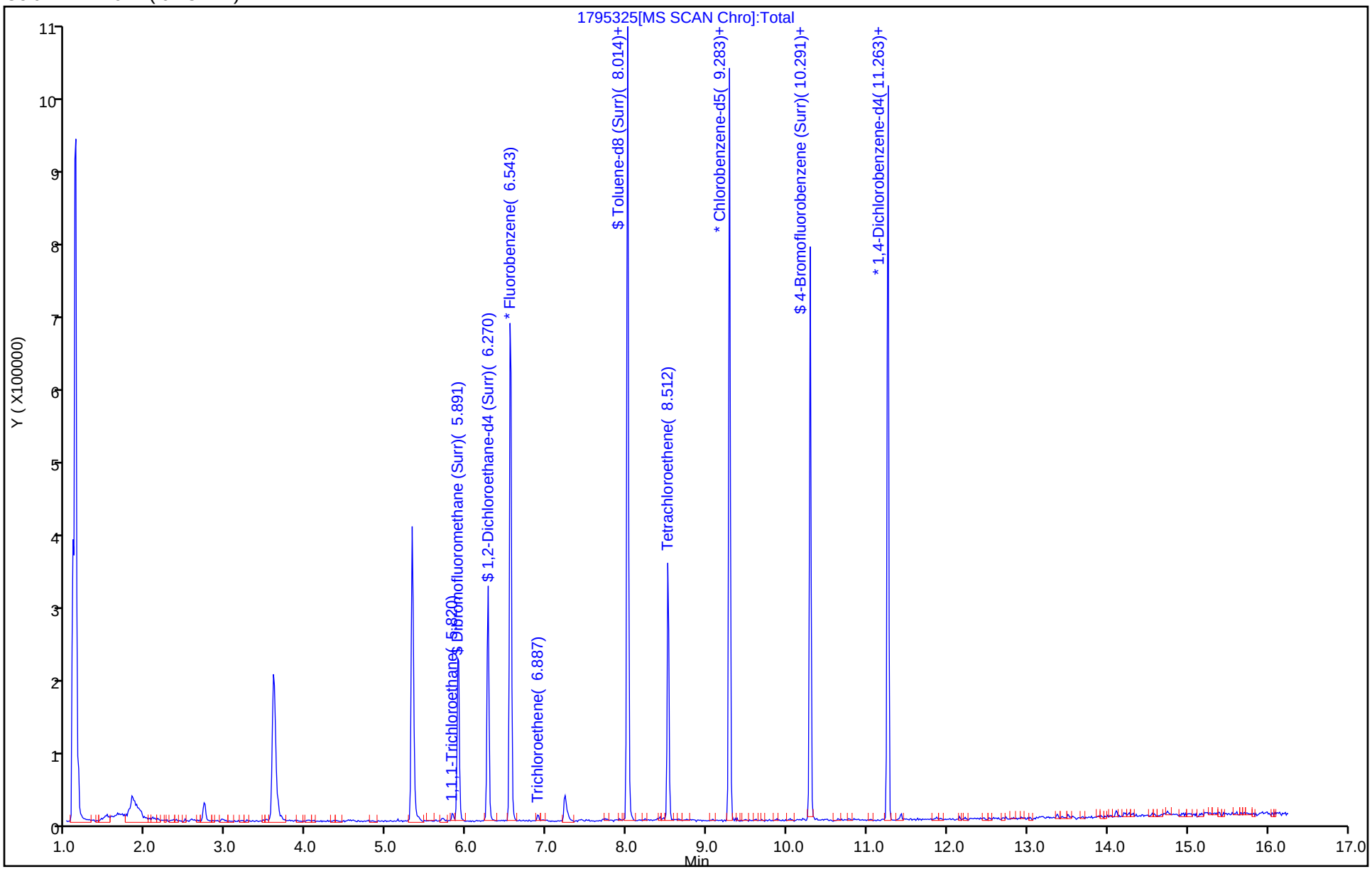
Report Date: 23-Sep-2023 09:18:33 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795325.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 17:24:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-C-2 | Lab Sample ID: | 240-191867-2 | Worklist Smp#: | 22 |
| Client ID: | W-4-S/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 21 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795325.D
Lims ID: 240-191867-C-2
Client ID: W-4-S/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 17:24:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-022
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:32

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 24.1 | 96.21 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 23.0 | 91.90 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 23.6 | 94.21 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 21.0 | 84.10 |

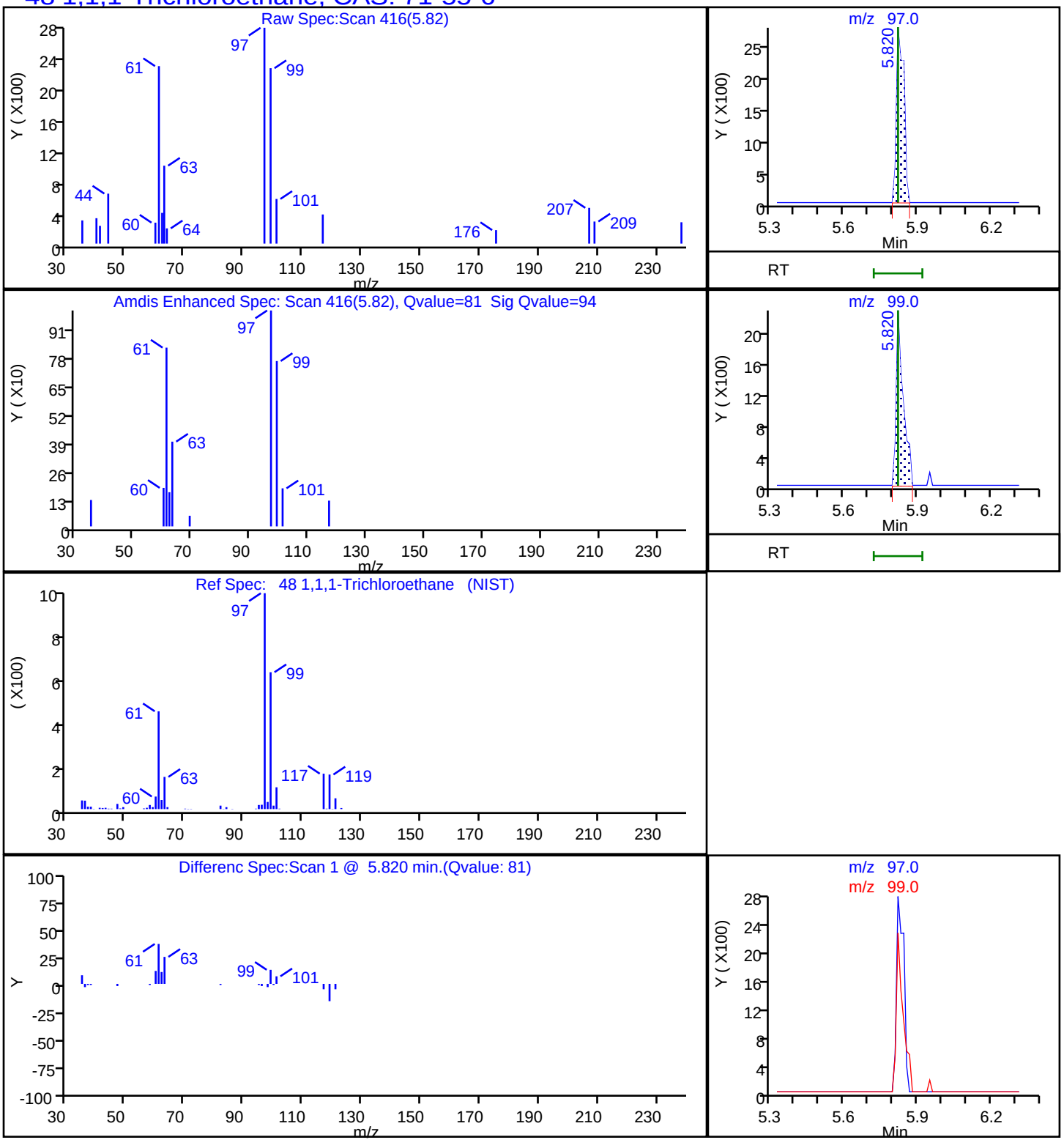
Report Date: 23-Sep-2023 09:18:33 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795325.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 17:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | 240-191867-C-2 | Lab Sample ID: | 240-191867-2 | | |
| Client ID: | W-4-S/091223/ | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 21 | Worklist Smp#: | 22 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

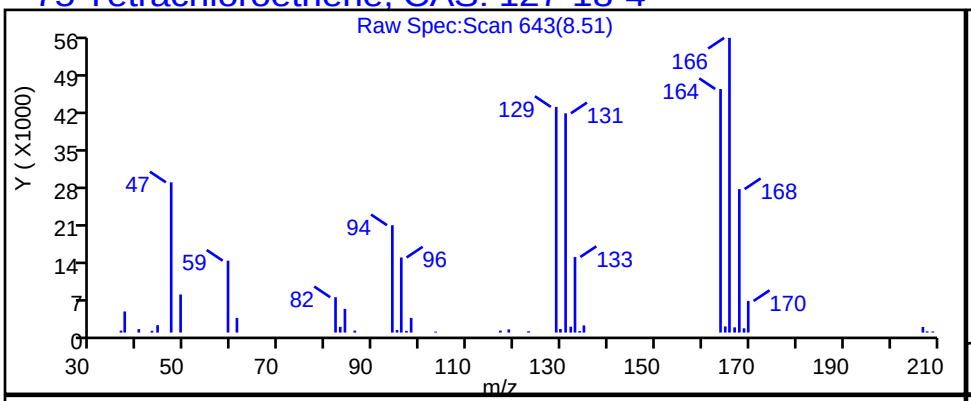
## 48 1,1,1-Trichloroethane, CAS: 71-55-6

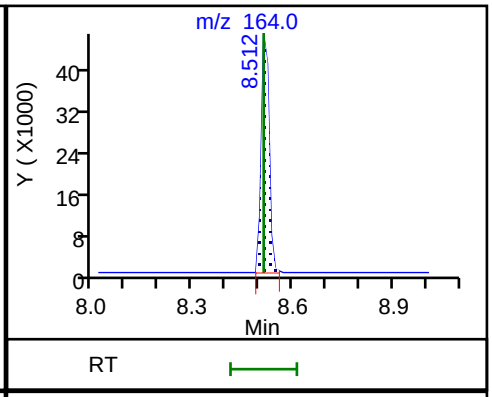


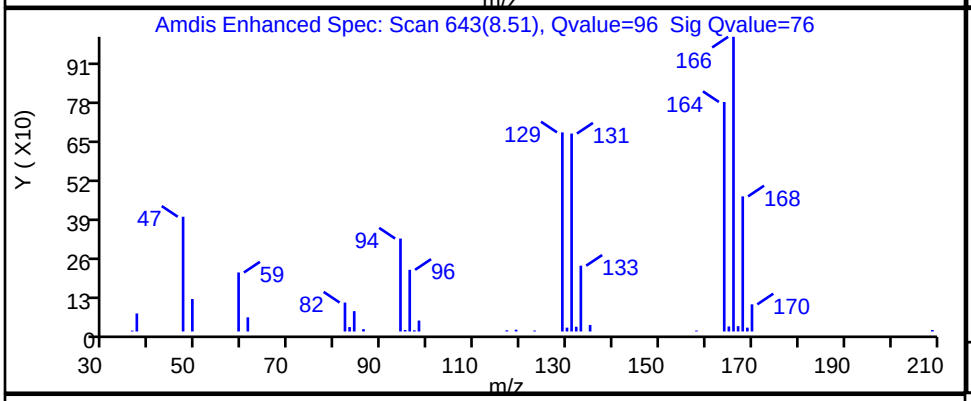
Eurofins Cleveland

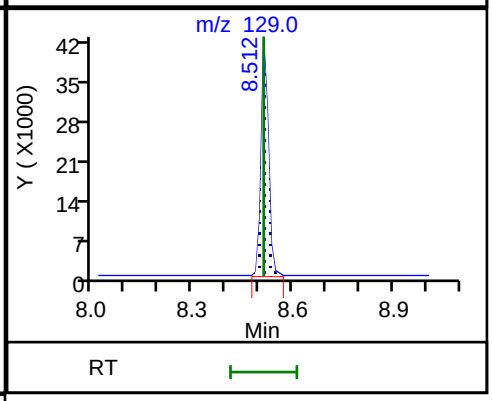
| | | | |
|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795325.D | | |
| Injection Date: | 22-Sep-2023 17:24:30 | Instrument ID: | A3UX17 |
| Lims ID: | 240-191867-C-2 | Lab Sample ID: | 240-191867-2 |
| Client ID: | W-4-S/091223/ | | |
| Operator ID: | 402279 | ALS Bottle#: | 21 Worklist Smp#: 22 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN |

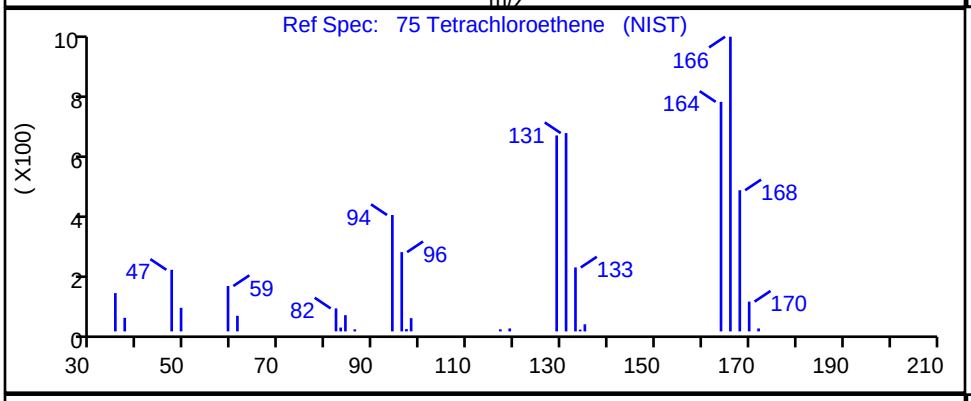
## 75 Tetrachloroethene, CAS: 127-18-4

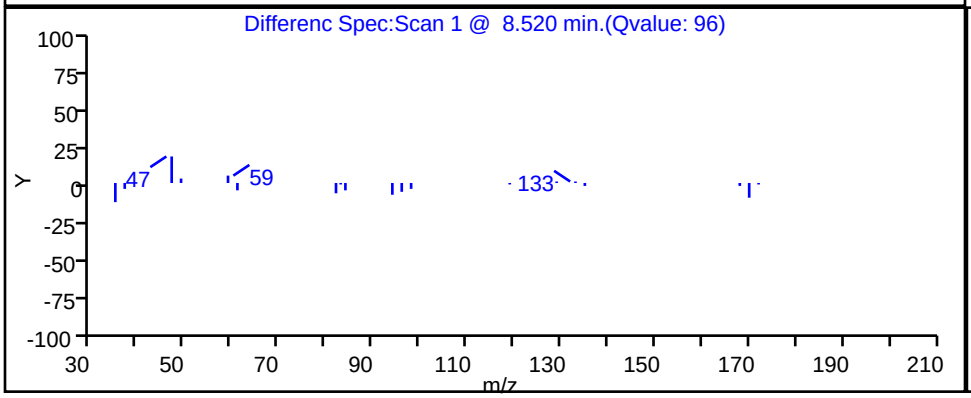


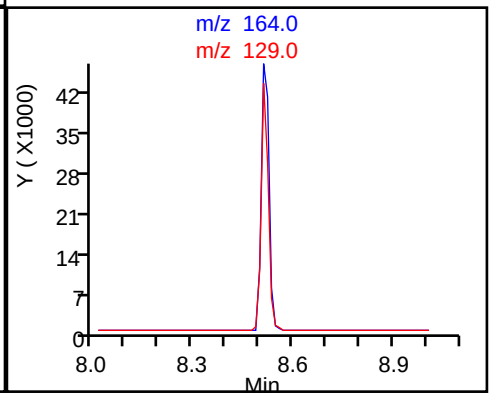



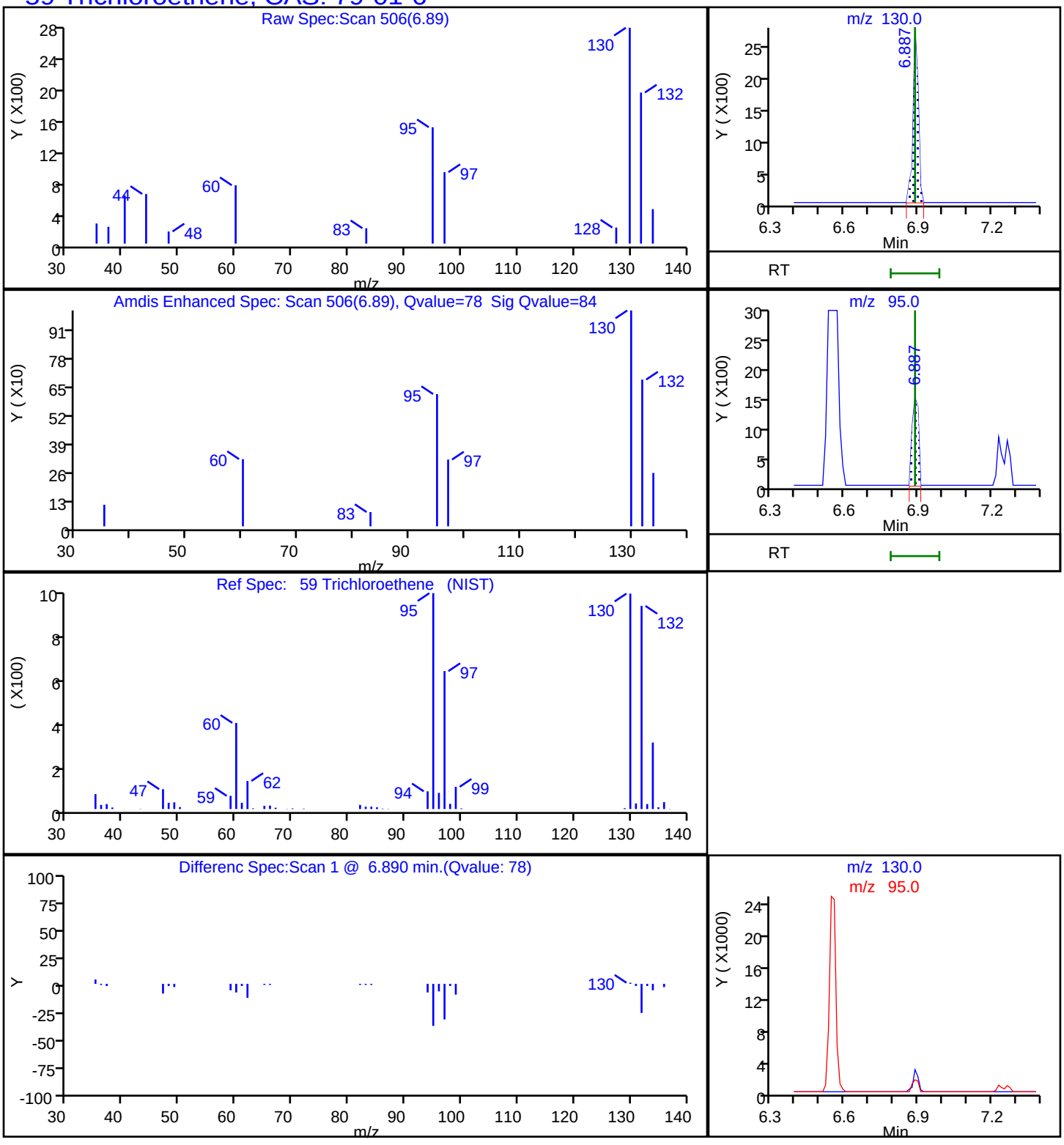
Report Date: 23-Sep-2023 09:18:33 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795325.D

| | | | |
|---|---|---|---|
| Injection Date: | 22-Sep-2023 17:24:30 | Instrument ID: | A3UX17 |
| Lims ID: | 240-191867-C-2 | Lab Sample ID: | 240-191867-2 |
| Client ID: | W-4-S/091223/ | | |
| Operator ID: | 402279 | ALS Bottle#: | 21 Worklist Smp#: 22 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN |

## 59 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: W-3-S/091223/ | Lab Sample ID: 240-191867-3

Matrix: Water | Lab File ID: 1795326.D

Analysis Method: 8260D | Date Collected: 09/12/2023 14:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 17:48

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | U | 5.0 | 2.4 |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | U | 5.0 | 2.4 |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | U | 5.0 | 2.5 |
| 71-43-2 | Benzene | 5.0 | U | 5.0 | 2.1 |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.3 |
| 100-41-4 | Ethylbenzene | 5.0 | U | 5.0 | 2.1 |
| 127-18-4 | Tetrachloroethene | 150 | | 5.0 | 2.2 |
| 108-88-3 | Toluene | 5.0 | U | 5.0 | 2.2 |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.6 |
| 79-01-6 | Trichloroethene | 5.0 | U | 5.0 | 2.2 |
| 75-01-4 | Vinyl chloride | 5.0 | U | 5.0 | 2.3 |
| 1330-20-7 | Xylenes, Total | 10 | U | 10 | 2.1 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 94 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 86 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 93 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 100 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795326.D
Lims ID: 240-191867-B-3
Client ID: W-3-S/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 17:48:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 240-0133763-023
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:45

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * | 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 98 | 481370 | 25.0 | |
| * | 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 88 | 401703 | 25.0 | |
| * | 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 208922 | 25.0 | |
| $ | 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 93 | 130096 | 24.9 | |
| $ | 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 171133 | 23.4 | |
| $ | 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 484736 | 23.3 | |
| $ | 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 93 | 172772 | 21.4 | |
| | 11 Vinyl chloride | 62 | | 1.515 | | | | ND | |
| | 19 1,1-Dichloroethene | 96 | | 2.749 | | | | ND | |
| | 32 trans-1,2-Dichloroethene | 96 | | 3.804 | | | | ND | |
| | 35 1,1-Dichloroethane | 63 | | 4.539 | | | | ND | |
| | 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 38 | 1628 | 0.4347 | |
| | 48 1,1,1-Trichloroethane | 97 | | 5.820 | | | | ND | |
| | 53 Benzene | 78 | | 6.223 | | | | ND | |
| | 59 Trichloroethene | 130 | | 6.887 | | | | ND | |
| | 71 Toluene | 91 | | 8.073 | | | | ND | |
| | 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 94 | 92284 | 29.8 | |
| | 85 Ethylbenzene | 106 | | 9.378 | | | | ND | |
| | 86 m-Xylene & p-Xylene | 106 | | 9.472 | | | | ND | |
| | 87 o-Xylene | 106 | | 9.816 | | | | ND | |
| S | 130 Xylenes, Total | 106 | | 16.980 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

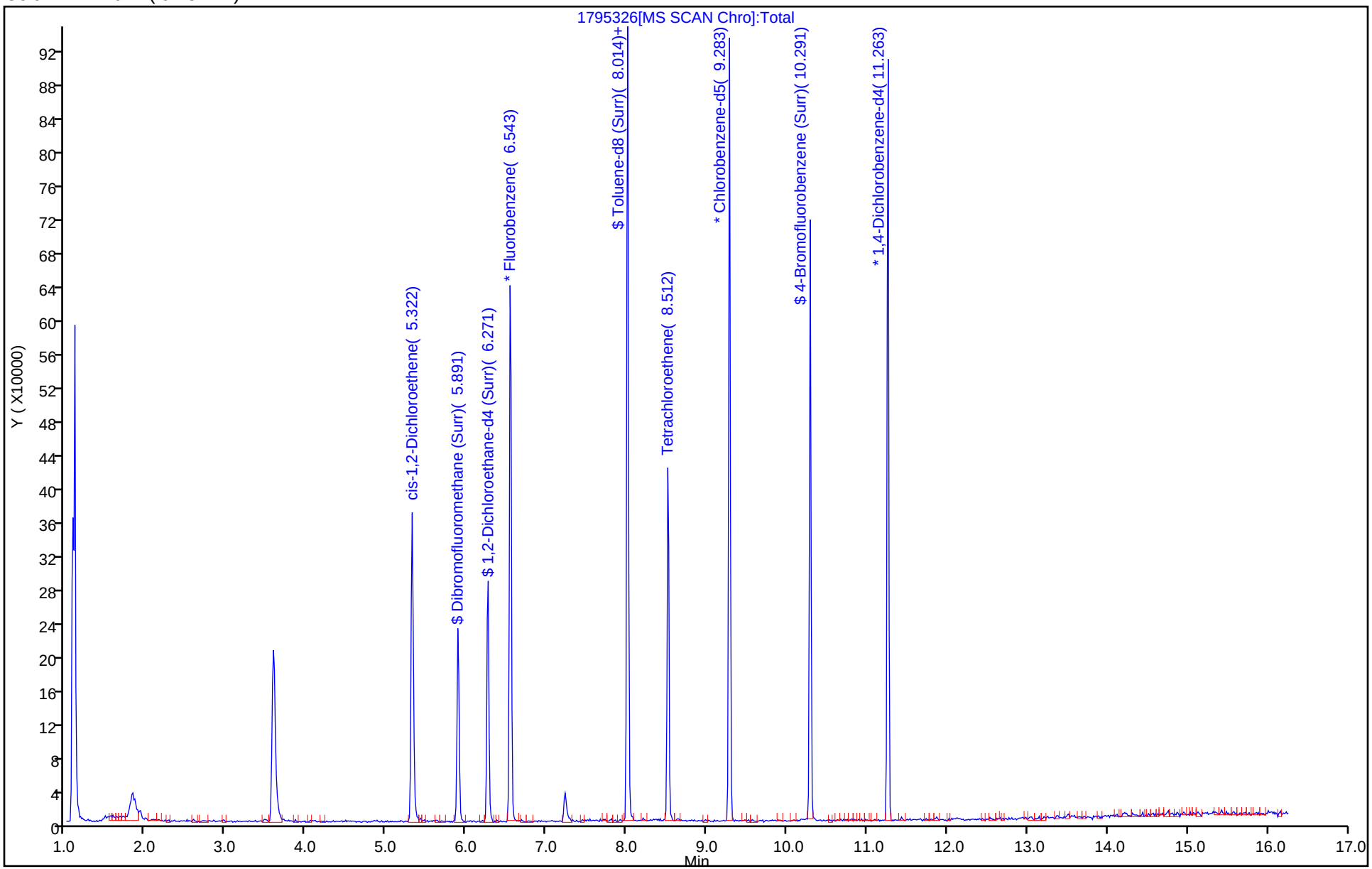
Report Date: 23-Sep-2023 09:18:34 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795326.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 17:48:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-B-3 | Lab Sample ID: | 240-191867-3 | Worklist Smp#: | 23 |
| Client ID: | W-3-S/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 5.0000 | ALS Bottle#: | 22 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795326.D
Lims ID: 240-191867-B-3
Client ID: W-3-S/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 17:48:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 240-0133763-023
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

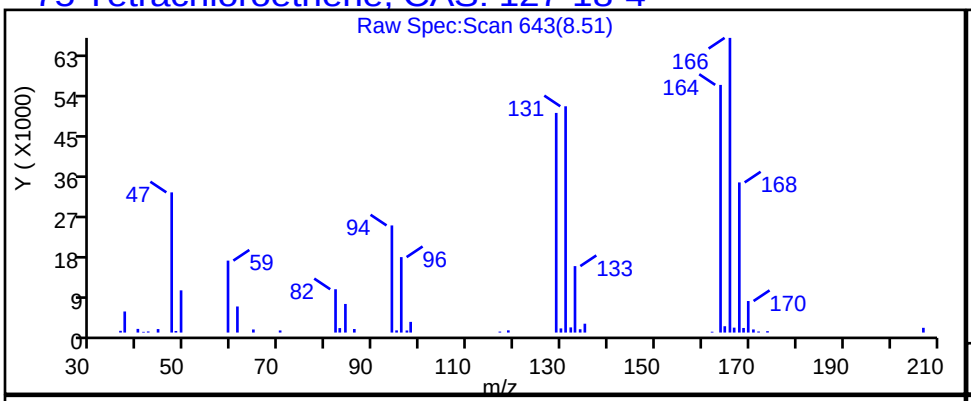
First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:45

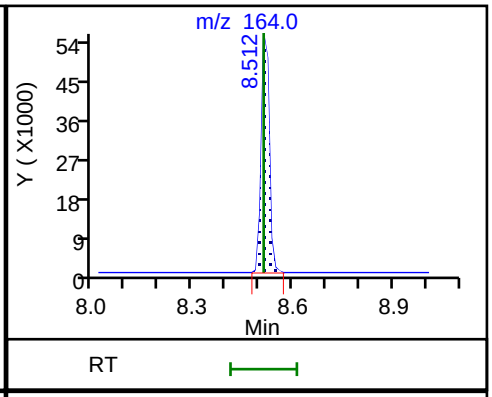
| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 24.9 | 99.76 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 23.4 | 93.56 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 23.3 | 93.38 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 21.4 | 85.63 |

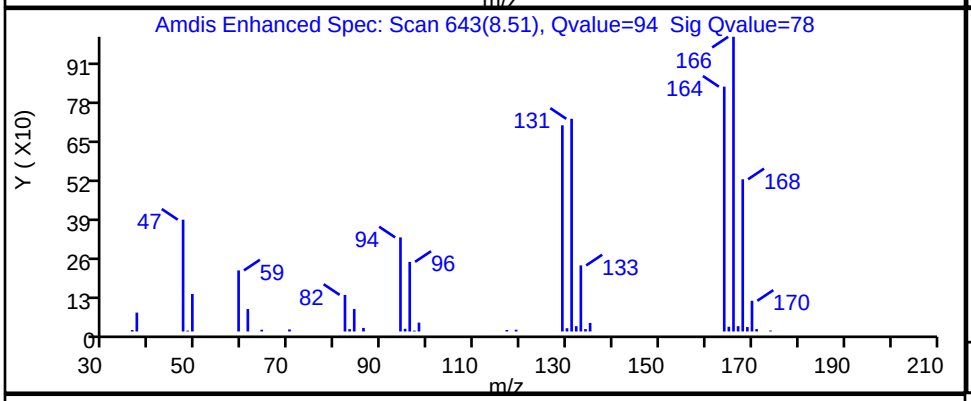
Eurofins Cleveland

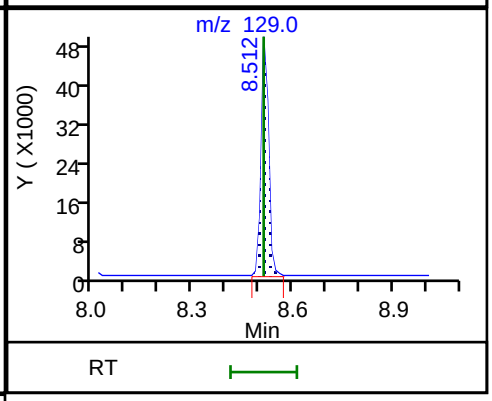
Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795326.D
Injection Date: 22-Sep-2023 17:48:30 Instrument ID: A3UX17
Lims ID: 240-191867-B-3 Lab Sample ID: 240-191867-3
Client ID: W-3-S/091223/
Operator ID: 402279 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

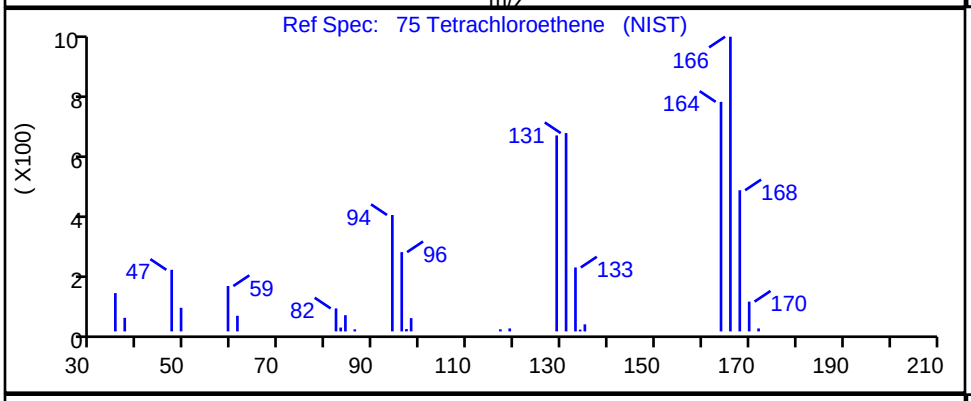
## 75 Tetrachloroethene, CAS: 127-18-4

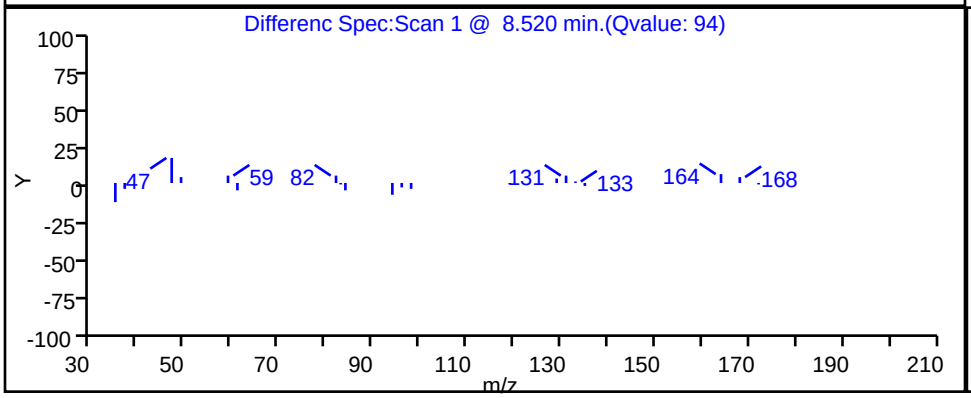


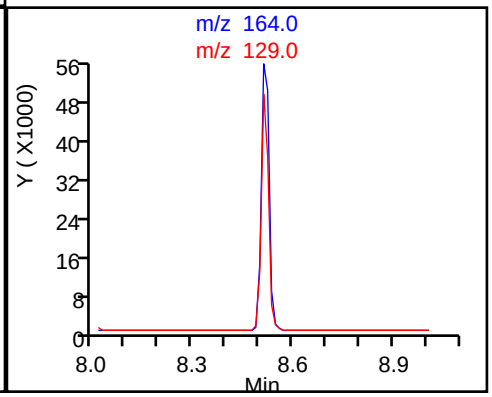



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: HR-17/091223/ | Lab Sample ID: 240-191867-4

Matrix: Water | Lab File ID: 1795327.D

Analysis Method: 8260D | Date Collected: 09/12/2023 15:30

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 18:12

Soil Aliquot Vol: | Dilution Factor: 5

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 5.0 | U | 5.0 | 2.4 |
| 75-34-3 | 1,1-Dichloroethane | 5.0 | U | 5.0 | 2.4 |
| 75-35-4 | 1,1-Dichloroethene | 5.0 | U | 5.0 | 2.5 |
| 71-43-2 | Benzene | 5.0 | U | 5.0 | 2.1 |
| 156-59-2 | cis-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.3 |
| 100-41-4 | Ethylbenzene | 5.0 | U | 5.0 | 2.1 |
| 127-18-4 | Tetrachloroethene | 200 | | 5.0 | 2.2 |
| 108-88-3 | Toluene | 5.0 | U | 5.0 | 2.2 |
| 156-60-5 | trans-1,2-Dichloroethene | 5.0 | U | 5.0 | 2.6 |
| 79-01-6 | Trichloroethene | 5.0 | U | 5.0 | 2.2 |
| 75-01-4 | Vinyl chloride | 5.0 | U | 5.0 | 2.3 |
| 1330-20-7 | Xylenes, Total | 10 | U | 10 | 2.1 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 89 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 82 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 99 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795327.D
Lims ID: 240-191867-C-4
Client ID: HR-17/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 18:12:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 240-0133763-024
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * | 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 98 | 478519 | 25.0 | |
| * | 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 88 | 397980 | 25.0 | |
| * | 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 94 | 204672 | 25.0 | |
| $ | 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 92 | 128482 | 24.8 | |
| $ | 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 90 | 162366 | 22.3 | |
| $ | 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 96 | 486292 | 23.6 | |
| $ | 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 93 | 163591 | 20.5 | |
| | 11 Vinyl chloride | 62 | | 1.515 | | | | ND | |
| | 19 1,1-Dichloroethene | 96 | | 2.749 | | | | ND | |
| | 32 trans-1,2-Dichloroethene | 96 | | 3.804 | | | | ND | |
| | 35 1,1-Dichloroethane | 63 | | 4.539 | | | | ND | |
| | 41 cis-1,2-Dichloroethene | 96 | | 5.322 | | | | ND | |
| | 48 1,1,1-Trichloroethane | 97 | | 5.820 | | | | ND | |
| | 53 Benzene | 78 | | 6.223 | | | | ND | |
| | 59 Trichloroethene | 130 | | 6.887 | | | | ND | |
| | 71 Toluene | 91 | | 8.073 | | | | ND | |
| | 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 95 | 122229 | 39.8 | |
| | 85 Ethylbenzene | 106 | | 9.378 | | | | ND | |
| | 86 m-Xylene & p-Xylene | 106 | | 9.472 | | | | ND | |
| | 87 o-Xylene | 106 | | 9.816 | | | | ND | |
| S | 130 Xylenes, Total | 106 | | 16.980 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

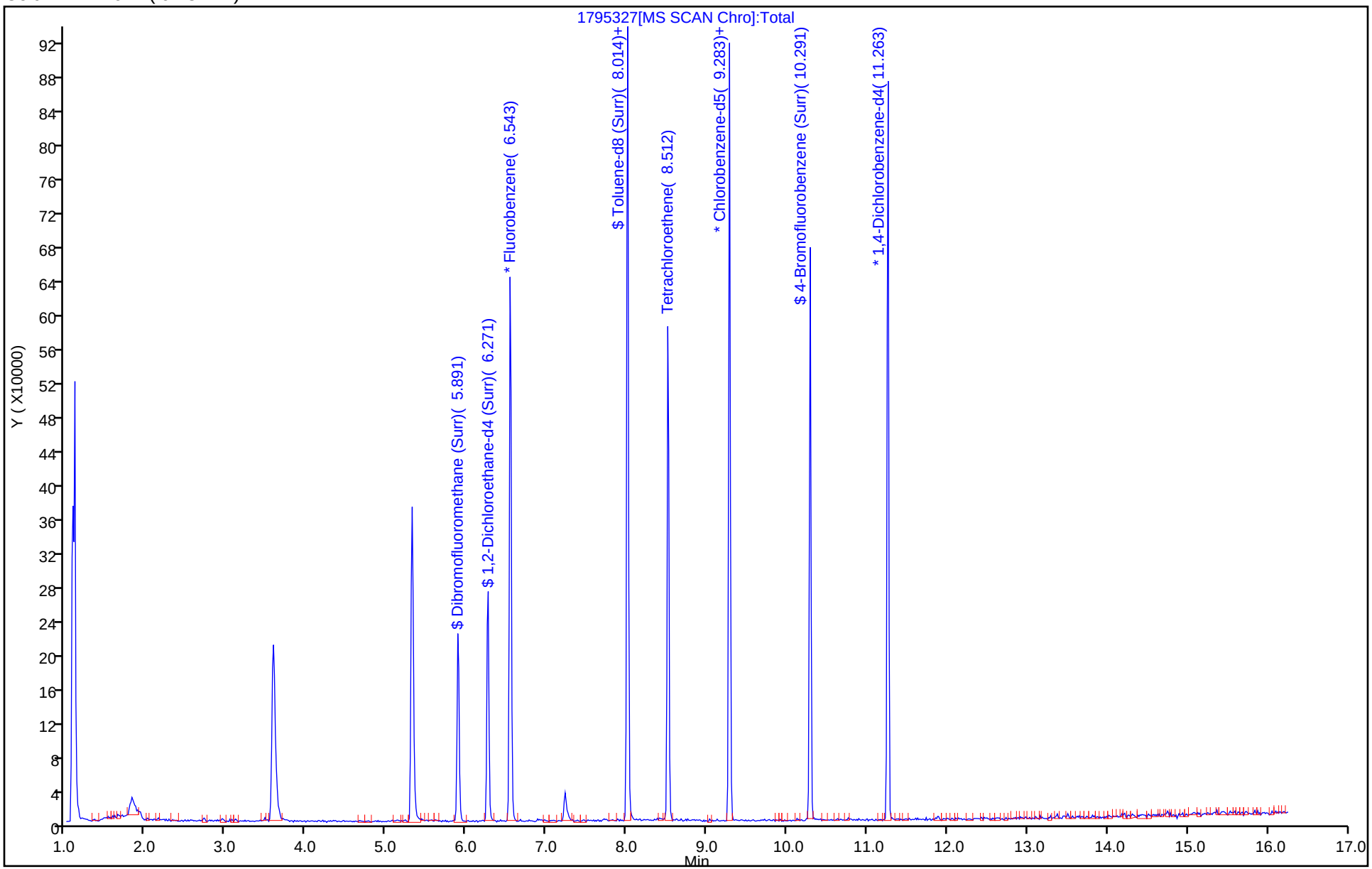
Report Date: 23-Sep-2023 09:18:35 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795327.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 18:12:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-C-4 | Lab Sample ID: | 240-191867-4 | Worklist Smp#: | 24 |
| Client ID: | HR-17/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 5.0000 | ALS Bottle#: | 23 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795327.D
Lims ID: 240-191867-C-4
Client ID: HR-17/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 18:12:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 240-0133763-024
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 24.8 | 99.11 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 22.3 | 89.30 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 23.6 | 94.55 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 20.5 | 81.84 |

Report Date: 23-Sep-2023 09:18:35 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795327.D

Injection Date: 22-Sep-2023 18:12:30 Instrument ID: A3UX17

Lims ID: 240-191867-C-4 Lab Sample ID: 240-191867-4

Client ID: HR-17/091223/

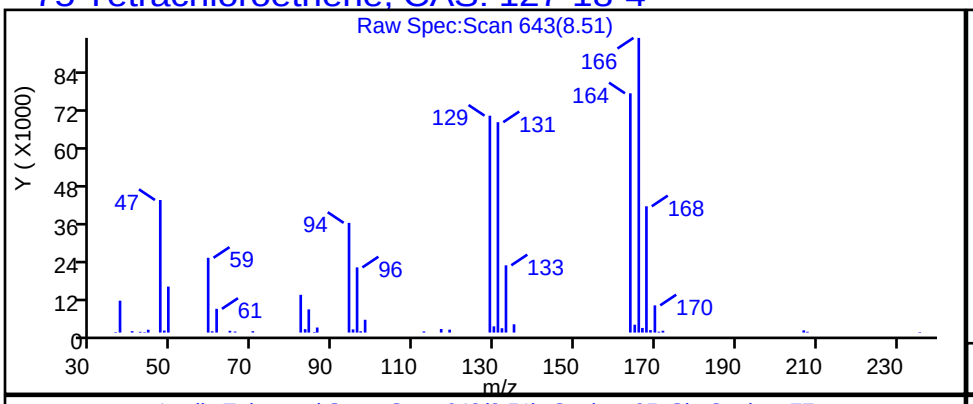
Operator ID: 402279 ALS Bottle#: 23 Worklist Smp#: 24

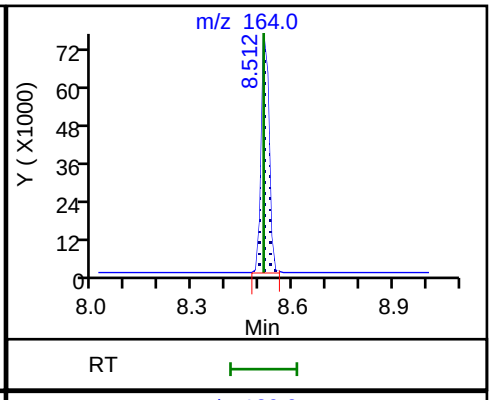
Purge Vol: 5.000 mL Dil. Factor: 5.0000

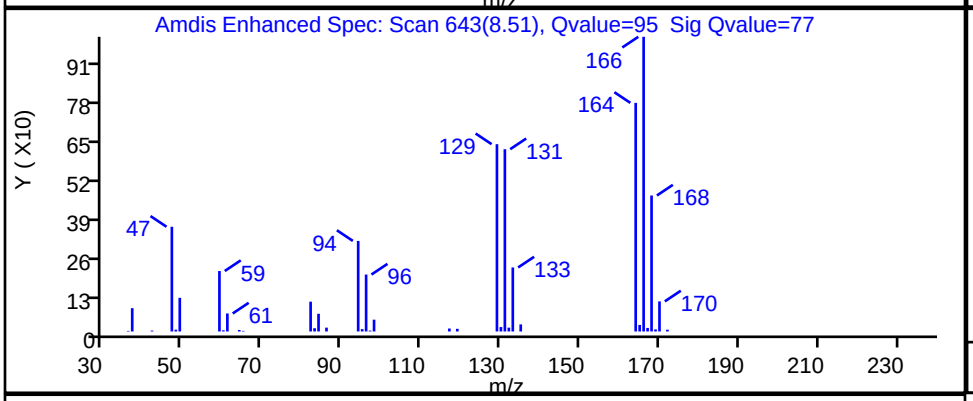
Method: 8260_17 Limit Group: MSV 8260C ICAL

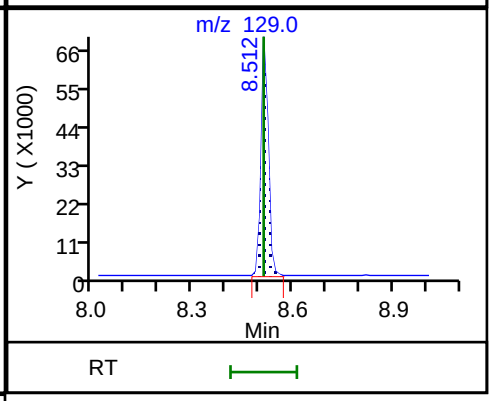
Column: DB-624 ( 0.18 mm) Detector MS SCAN

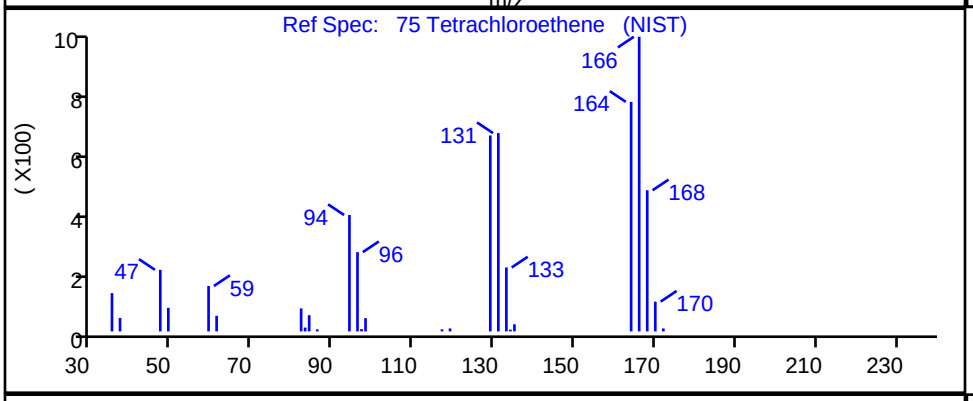
## 75 Tetrachloroethene, CAS: 127-18-4

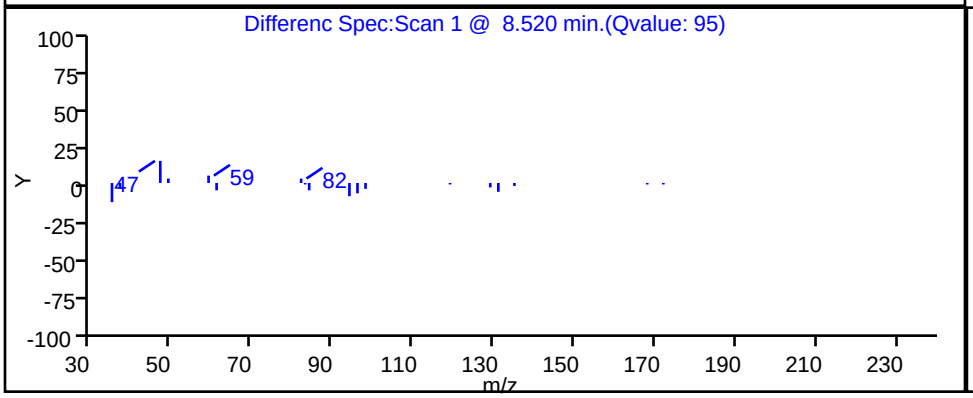


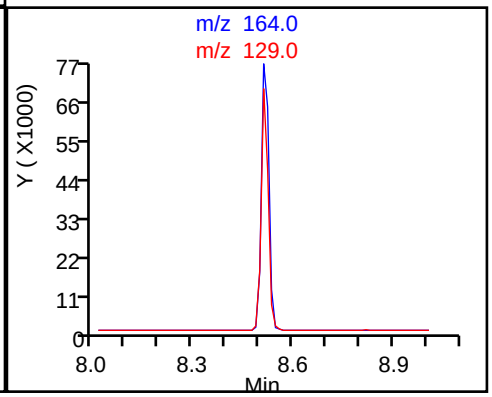



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: DUP-01/091223/ | Lab Sample ID: 240-191867-5

Matrix: Water | Lab File ID: 1795328.D

Analysis Method: 8260D | Date Collected: 09/12/2023 00:00

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 18:35

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.3 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 11 | | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 6.0 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 100 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 89 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 104 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795328.D
Lims ID: 240-191867-A-5
Client ID: DUP-01/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 18:35:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-025
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:57

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.543 | 0.012 | 98 | 463203 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 88 | 401700 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 212225 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 91 | 130318 | 26.0 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 93 | 175657 | 25.0 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 93 | 460453 | 22.2 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 91 | 177992 | 22.1 | |
| 11 Vinyl chloride | 62 | | 1.515 | | | | ND | |
| 19 1,1-Dichloroethene | 96 | 2.737 | 2.749 | -0.012 | 30 | 347 | 0.1299 | |
| 32 trans-1,2-Dichloroethene | 96 | | 3.804 | | | | ND | |
| 35 1,1-Dichloroethane | 63 | | 4.539 | | | | ND | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 38 | 4539 | 1.26 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.820 | 0.012 | 51 | 4952 | 1.03 | |
| 53 Benzene | 78 | | 6.223 | | | | ND | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 89 | 20596 | 6.04 | |
| 71 Toluene | 91 | | 8.073 | | | | ND | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 92 | 32741 | 10.6 | |
| 85 Ethylbenzene | 106 | | 9.378 | | | | ND | |
| 86 m-Xylene & p-Xylene | 106 | | 9.472 | | | | ND | |
| 87 o-Xylene | 106 | | 9.816 | | | | ND | |
| S 130 Xylenes, Total | 106 | | 16.980 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

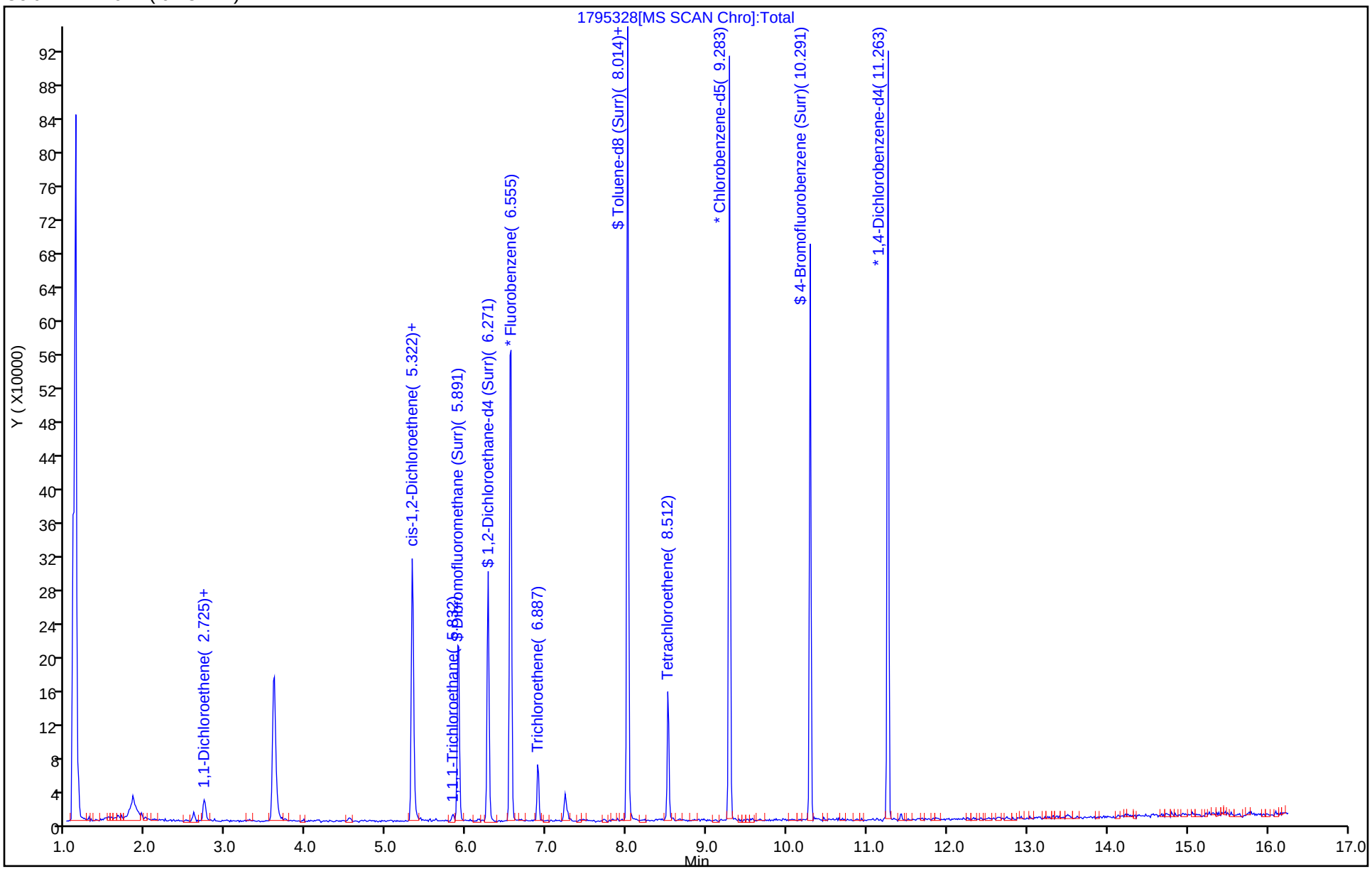
Report Date: 23-Sep-2023 09:18:36 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795328.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 18:35:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-A-5 | Lab Sample ID: | 240-191867-5 | Worklist Smp#: | 25 |
| Client ID: | DUP-01/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 24 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795328.D
Lims ID: 240-191867-A-5
Client ID: DUP-01/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 18:35:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-025
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

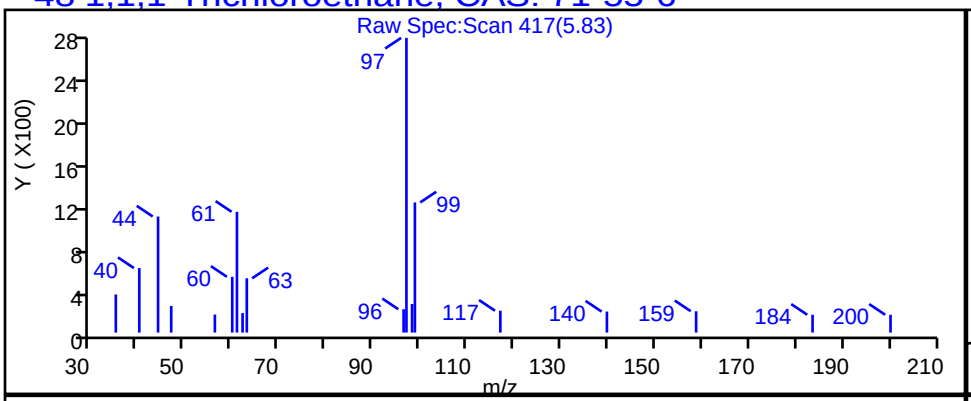
First Level Reviewer: HE9L Date: 23-Sep-2023 09:16:57

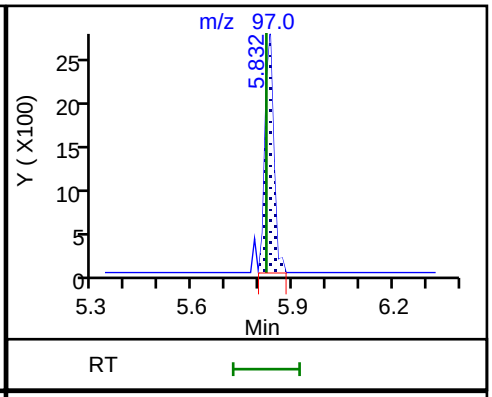
| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 26.0 | 103.85 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 25.0 | 99.80 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 22.2 | 88.70 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 22.1 | 88.22 |

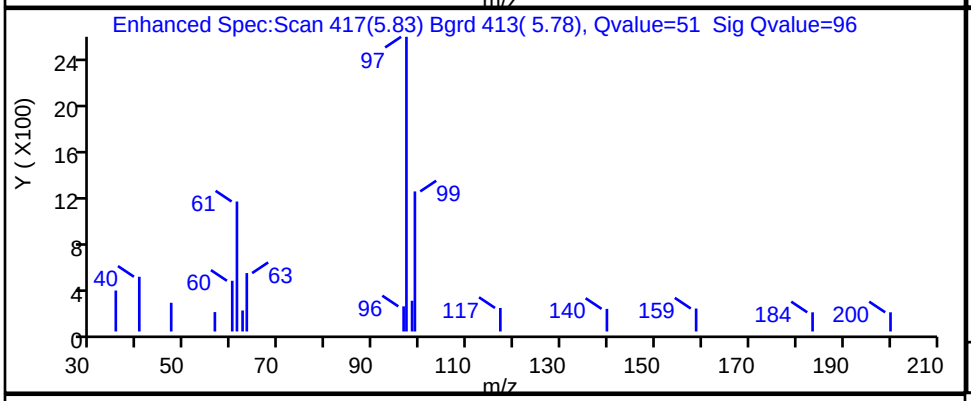
Eurofins Cleveland

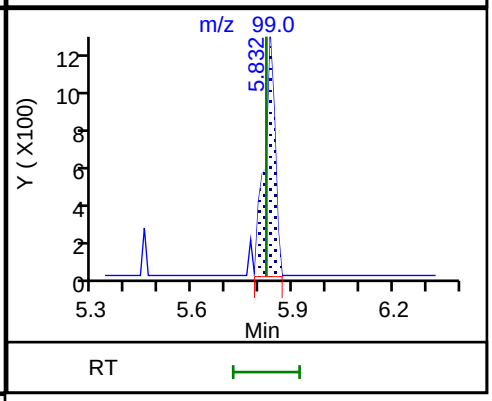
Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795328.D
Injection Date: 22-Sep-2023 18:35:30 Instrument ID: A3UX17
Lims ID: 240-191867-A-5 Lab Sample ID: 240-191867-5
Client ID: DUP-01/091223/
Operator ID: 402279 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

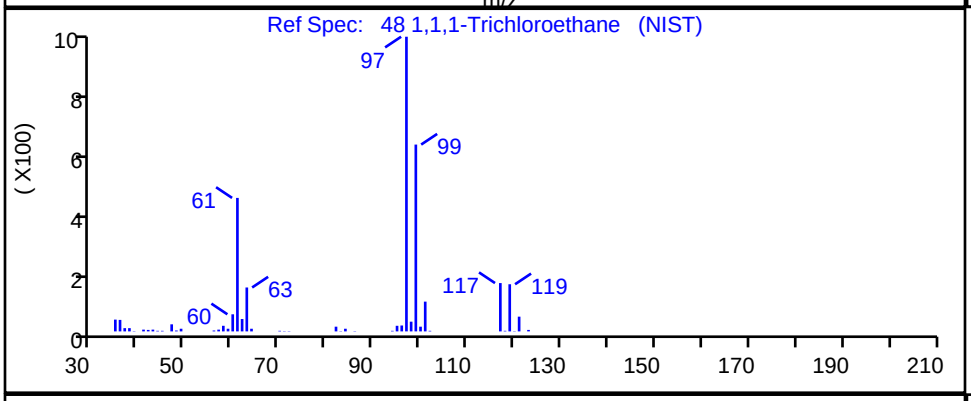
## 48 1,1,1-Trichloroethane, CAS: 71-55-6

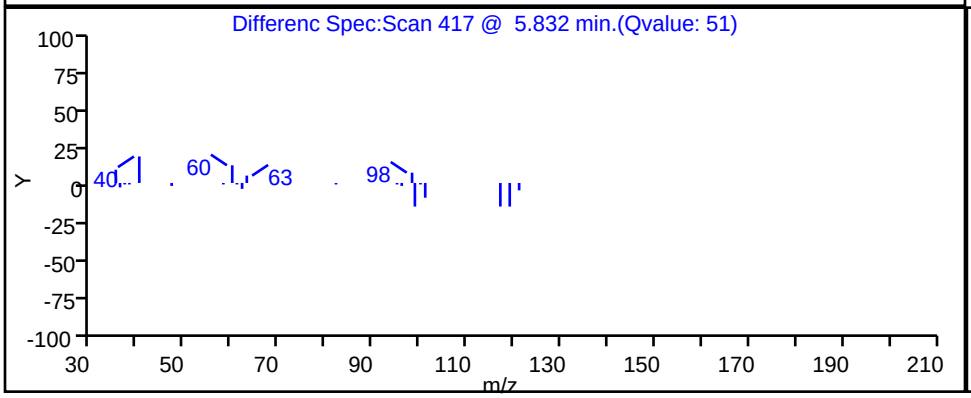


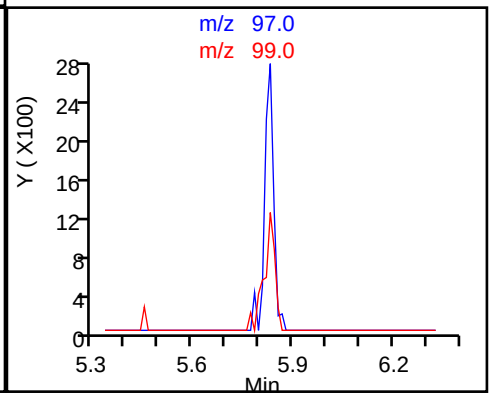



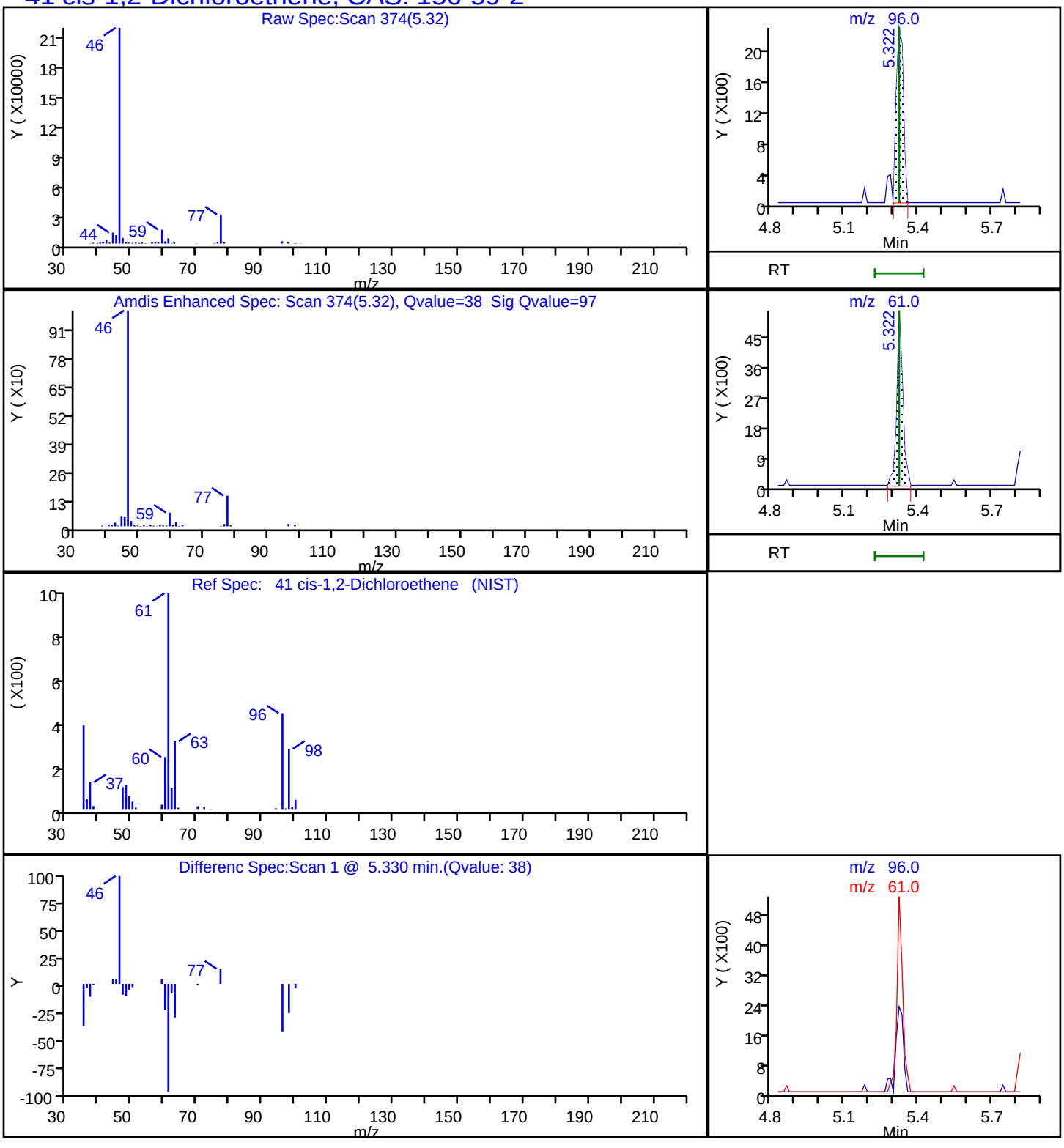
Report Date: 23-Sep-2023 09:18:36 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795328.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 18:35:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | 240-191867-A-5 | Lab Sample ID: | 240-191867-5 | | |
| Client ID: | DUP-01/091223/ | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 41 cis-1,2-Dichloroethene, CAS: 156-59-2



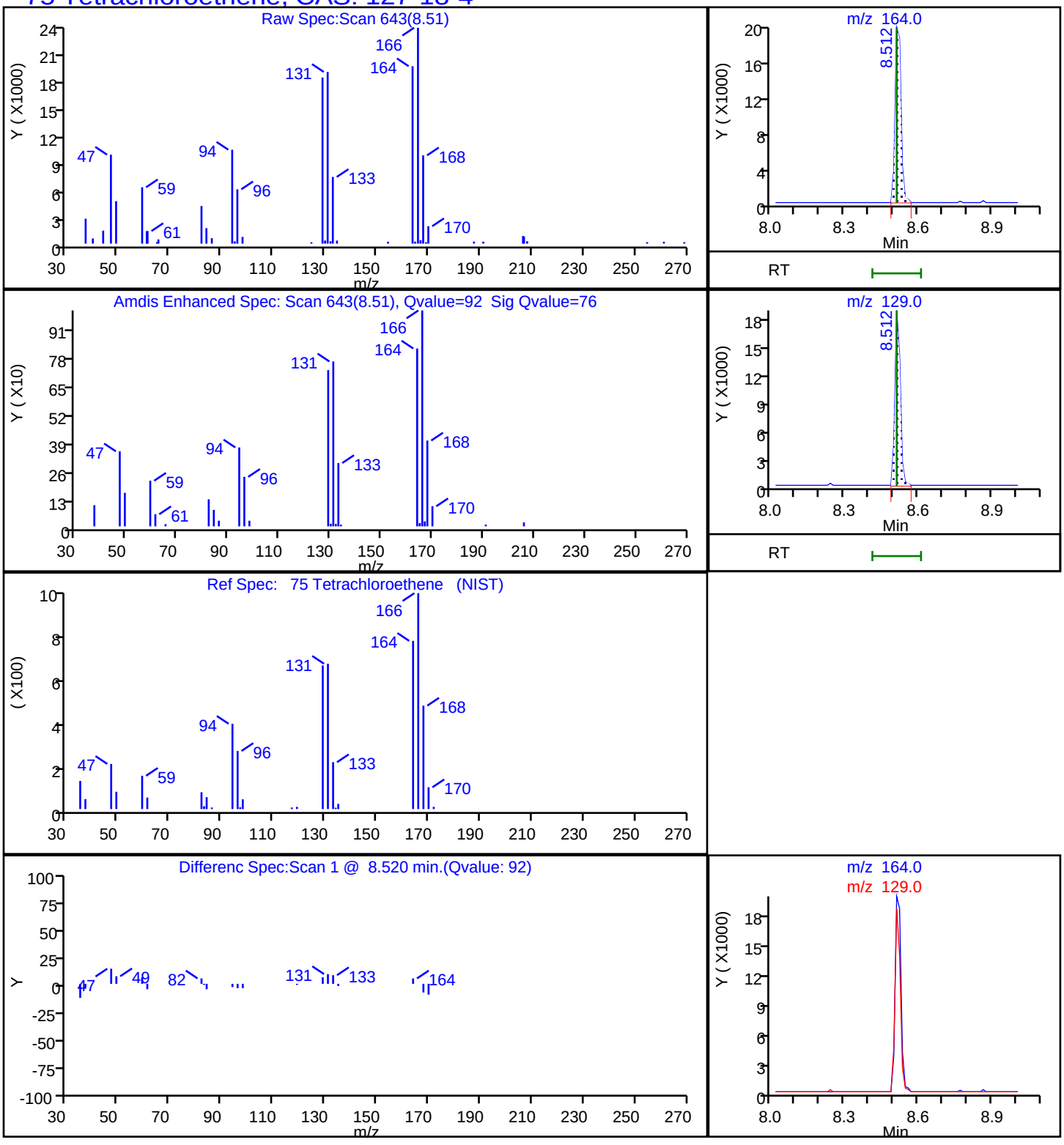
Report Date: 23-Sep-2023 09:18:36 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795328.D

| | | | |
|---|---|---|---|
| Injection Date: | 22-Sep-2023 18:35:30 | Instrument ID: | A3UX17 |
| Lims ID: | 240-191867-A-5 | Lab Sample ID: | 240-191867-5 |
| Client ID: | DUP-01/091223/ | | |
| Operator ID: | 402279 | ALS Bottle#: | 24 Worklist Smp#: 25 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN |

## 75 Tetrachloroethene, CAS: 127-18-4



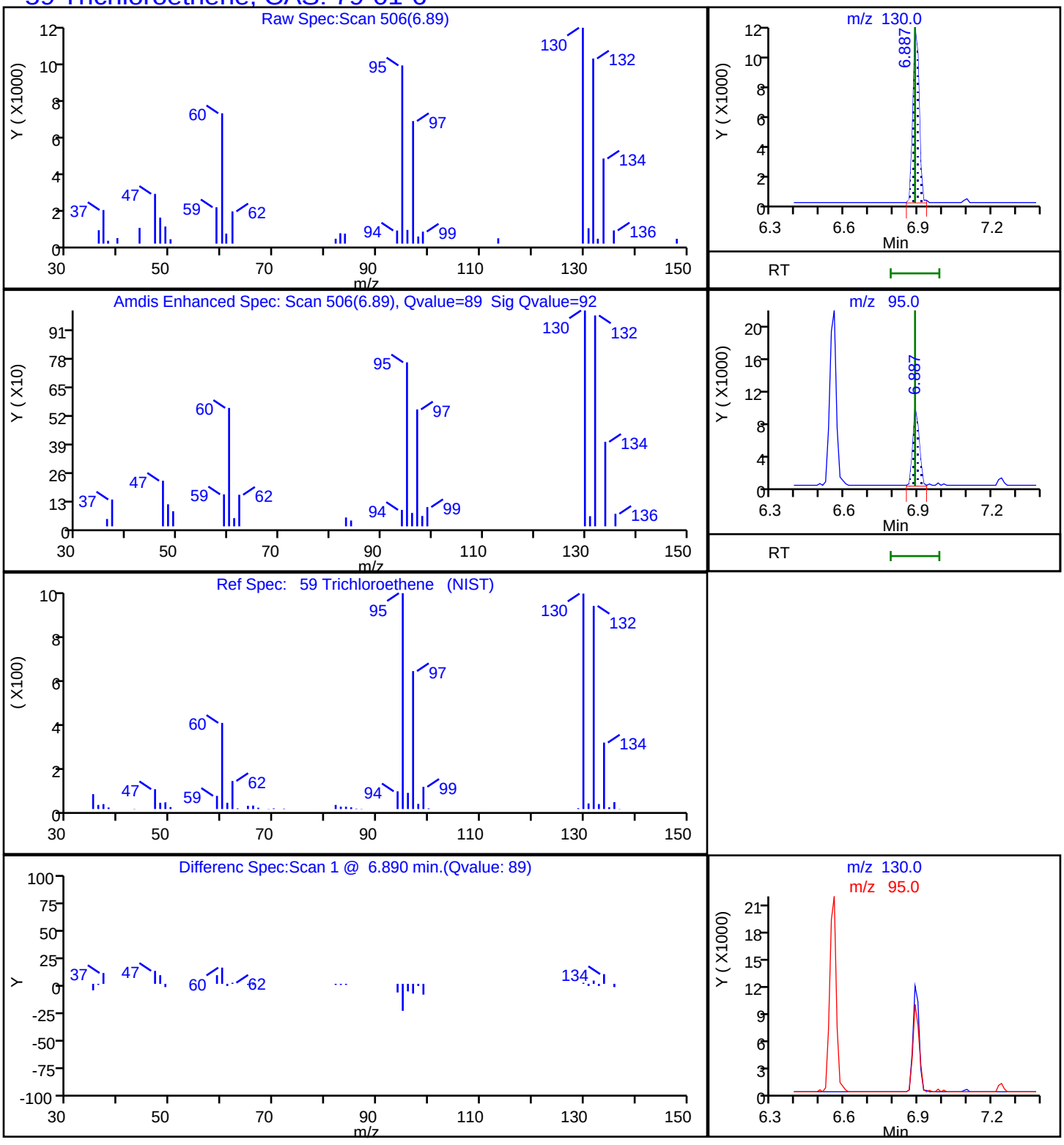
Report Date: 23-Sep-2023 09:18:36 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795328.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 18:35:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | 240-191867-A-5 | Lab Sample ID: | 240-191867-5 | | |
| Client ID: | DUP-01/091223/ | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 24 | Worklist Smp#: | 25 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 59 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: EB-02/091223/ | Lab Sample ID: 240-191867-6

Matrix: Water | Lab File ID: 1795329.D

Analysis Method: 8260D | Date Collected: 09/12/2023 17:30

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 18:58

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 102 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 85 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 108 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795329.D
Lims ID: 240-191867-C-6
Client ID: EB-02/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 18:58:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-026
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| | Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * | 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 97 | 426596 | 25.0 | |
| * | 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 359575 | 25.0 | |
| * | 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 94 | 190576 | 25.0 | |
| $ | 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 93 | 124985 | 27.0 | |
| $ | 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.259 | 6.271 | -0.012 | 91 | 165227 | 25.5 | |
| $ | 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 440773 | 23.7 | |
| $ | 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 96 | 152833 | 21.2 | |
| | 11 Vinyl chloride | 62 | | 1.515 | | | | ND | |
| | 19 1,1-Dichloroethene | 96 | | 2.749 | | | | ND | |
| | 32 trans-1,2-Dichloroethene | 96 | | 3.804 | | | | ND | |
| | 35 1,1-Dichloroethane | 63 | | 4.539 | | | | ND | |
| | 41 cis-1,2-Dichloroethene | 96 | | 5.322 | | | | ND | |
| | 48 1,1,1-Trichloroethane | 97 | | 5.820 | | | | ND | |
| | 53 Benzene | 78 | | 6.223 | | | | ND | |
| | 59 Trichloroethene | 130 | | 6.887 | | | | ND | |
| | 71 Toluene | 91 | | 8.073 | | | | ND | |
| | 75 Tetrachloroethene | 164 | | 8.512 | | | | ND | |
| | 85 Ethylbenzene | 106 | | 9.378 | | | | ND | |
| | 86 m-Xylene & p-Xylene | 106 | | 9.472 | | | | ND | |
| | 87 o-Xylene | 106 | | 9.816 | | | | ND | |
| S | 130 Xylenes, Total | 106 | | 16.980 | | | | ND | 7 |

## QC Flag Legend

Processing Flags
7 - Failed Limit of Detection

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

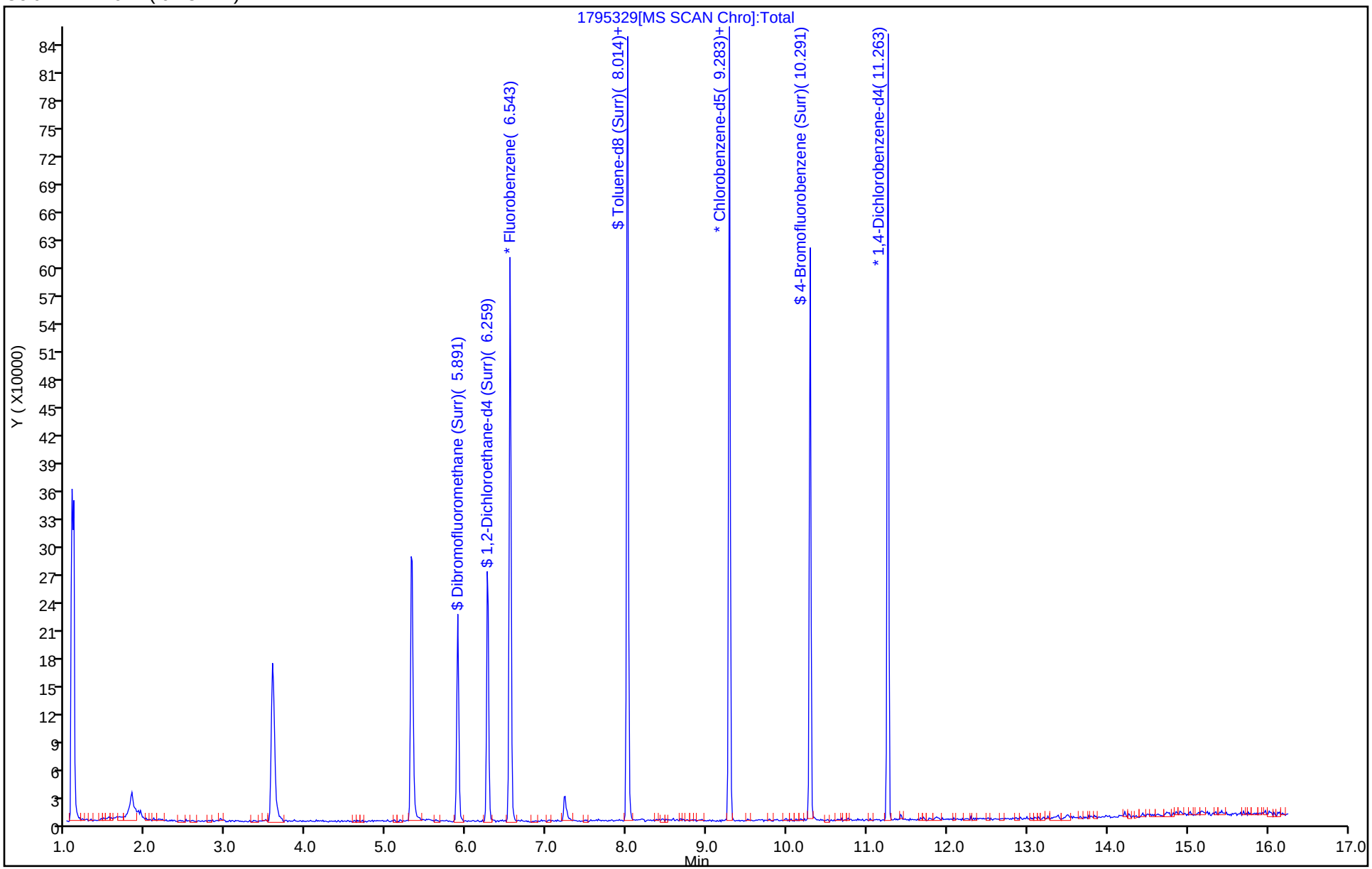
Report Date: 23-Sep-2023 09:18:37 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795329.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 18:58:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-C-6 | Lab Sample ID: | 240-191867-6 | Worklist Smp#: | 26 |
| Client ID: | EB-02/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 25 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795329.D
Lims ID: 240-191867-C-6
Client ID: EB-02/091223/
Sample Type: Client
Inject. Date: 22-Sep-2023 18:58:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-026
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 27.0 | 108.14 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 25.5 | 101.93 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 23.7 | 94.85 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 21.2 | 84.62 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

Calibration Files

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 240-583404/3 | 1794280.D |
| Level 2 | IC 240-583404/4 | 1794281.D |
| Level 3 | IC 240-583404/5 | 1794282.D |
| Level 4 | IC 240-583404/6 | 1794283.D |
| Level 5 | IC 240-583404/7 | 1794284.D |
| Level 6 | ICIS 240-583404/8 | 1794285.D |
| Level 7 | IC 240-583404/9 | 1794286.D |
| Level 8 | IC 240-583404/10 | 1794287.D |
| Level 9 | IC 240-583404/11 | 1794288.D |

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Dichlorodifluoromethane | 0.2613 0.2429 | 0.2812 0.2381 | 0.2776 0.2385 | 0.2789 0.2207 | 0.2462 | Ave | | 0.2539 | | | 0.1000 | 8.5 | | 20.0 | | | |
| Chloromethane | 0.5848 0.4378 | 0.4799 0.4370 | 0.4608 0.4345 | 0.4385 0.4104 | 0.4434 | Ave | | 0.4586 | | | 0.1000 | 11.1 | | 20.0 | | | |
| Vinyl chloride | 0.3518 0.3007 | 0.3528 0.3029 | 0.2890 0.2881 | 0.2928 0.2938 | 0.3020 | Ave | | 0.3082 | | | 0.1000 | 8.3 | | 20.0 | | | |
| Butadiene | +++++ 0.3924 | 0.5138 0.4015 | 0.4471 0.3735 | 0.4104 0.3715 | 0.4099 | Ave | | 0.4150 | | | | 11.2 | | 20.0 | | | |
| Bromomethane | +++++ 0.0428 | 0.0489 0.0455 | 0.0547 0.0461 | 0.0397 0.0465 | 0.0410 | Ave | | 0.0457 | | * | 0.0500 | 10.4 | | 20.0 | | | |
| Chloroethane | +++++ 0.1365 | 0.1547 0.1400 | 0.1769 0.1183 | 0.1776 0.1011 | 0.1526 | Ave | | 0.1447 | | | 0.0500 | 18.4 | | 20.0 | | | |
| Trichlorofluoromethane | 0.2947 0.2911 | 0.3196 0.2970 | 0.3072 0.2820 | 0.2937 0.2724 | 0.3002 | Ave | | 0.2953 | | | 0.1000 | 4.6 | | 20.0 | | | |
| Dichlorofluoromethane | 0.5160 0.3518 | 0.3974 0.3637 | 0.4203 0.3444 | 0.3749 0.3439 | 0.3741 | Ave | | 0.3874 | | | | 14.0 | | 20.0 | | | |
| Ethyl ether | 0.2646 0.2191 | 0.2168 0.2274 | 0.2376 0.2274 | 0.2154 0.2205 | 0.2115 | Ave | | 0.2267 | | | | 7.2 | | 20.0 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 0.2209 0.1149 | 0.1433 0.1218 | 0.1238 0.1152 | 0.1266 0.1100 | 0.1120 | Lin1 | 0.0448 | 0.1134 | | | 0.0500 | 9.0 | | 20.0 | 0.9980 | | 0.9900 |
| Acrolein | 0.0299 0.0169 | 0.0303 0.0174 | 0.0214 0.0182 | 0.0178 0.0176 | 0.0181 | Lin1 | 0.0411 | 0.0174 | | | | 13.7 | | 20.0 | 0.9990 | | 0.9900 |
| 1,1-Dichloroethene | 0.1867 0.1331 | 0.1779 0.1384 | 0.1411 0.1302 | 0.1374 0.1204 | 0.1320 | Ave | | 0.1441 | | | 0.1000 | 15.6 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Acetone | 0.4598<br>0.1267 | 0.3097<br>0.1226 | 0.2251<br>0.1287 | 0.1412<br>0.1245 | 0.1340 | Lin1 | 0.3633 | 0.1214 | | | 0.0100 | 13.0 | | 30.0 | 0.9980 | | 0.9900 |
| Iodomethane | 0.1655<br>0.1195 | 0.1403<br>0.1258 | 0.1137<br>0.1245 | 0.1128<br>0.1228 | 0.1156 | Ave | | 0.1267 | | | | 13.2 | | 20.0 | | | |
| Carbon disulfide | +++++<br>0.4108 | 0.4897<br>0.4114 | 0.4264<br>0.4037 | 0.4326<br>0.3875 | 0.3904 | Ave | | 0.4191 | | | 0.1000 | 7.8 | | 20.0 | | | |
| 3-Chloro-1-propene | 0.1073<br>0.0948 | 0.1157<br>0.1012 | 0.0836<br>0.0951 | 0.1028<br>0.0924 | 0.1069 | Ave | | 0.1000 | | | | 9.6 | | 20.0 | | | |
| Methyl acetate | 0.4311<br>0.3381 | 0.4156<br>0.3509 | 0.3421<br>0.3445 | 0.3451<br>0.3255 | 0.3489 | Ave | | 0.3602 | | | 0.0500 | 10.2 | | 20.0 | | | |
| Methylene Chloride | 0.3707<br>0.1683 | 0.3241<br>0.1705 | 0.2277<br>0.1672 | 0.1805<br>0.1568 | 0.1779 | Lin1 | 0.1299 | 0.1619 | | | 0.1000 | 14.7 | | 30.0 | 0.9980 | | 0.9900 |
| 2-Methyl-2-propanol | 0.0472<br>0.0382 | 0.0463<br>0.0393 | 0.0378<br>0.0400 | 0.0368<br>0.0403 | 0.0367 | Ave | | 0.0403 | | | | 9.6 | | 20.0 | | | |
| Methyl tert-butyl ether | 0.5018<br>0.4937 | 0.5016<br>0.5314 | 0.4876<br>0.5227 | 0.5179<br>0.4938 | 0.5122 | Ave | | 0.5070 | | | 0.1000 | 2.9 | | 20.0 | | | |
| trans-1,2-Dichloroethene | 0.2122<br>0.1607 | 0.2123<br>0.1653 | 0.1749<br>0.1566 | 0.1584<br>0.1456 | 0.1497 | Ave | | 0.1706 | | | 0.1000 | 14.7 | | 20.0 | | | |
| Acrylonitrile | 0.1956<br>0.1721 | 0.1894<br>0.1775 | 0.1744<br>0.1740 | 0.1725<br>0.1688 | 0.1741 | Ave | | 0.1776 | | | | 5.0 | | 20.0 | | | |
| Hexane | 0.0245<br>0.0407 | 0.0361<br>0.0383 | 0.0325<br>0.0399 | 0.0403<br>0.0377 | 0.0382 | Ave | | 0.0365 | | | | 14.1 | | 20.0 | | | |
| 1,1-Dichloroethane | 0.5125<br>0.4239 | 0.5005<br>0.4347 | 0.4105<br>0.4300 | 0.4550<br>0.4100 | 0.4452 | Ave | | 0.4469 | | | 0.2000 | 8.3 | | 20.0 | | | |
| Vinyl acetate | +++++<br>0.5721 | 0.6327<br>0.5873 | 0.6001<br>0.5853 | 0.5511<br>0.5672 | 0.5426 | Ave | | 0.5798 | | | | 4.9 | | 20.0 | | | |
| 2,2-Dichloropropane | 0.3168<br>0.2467 | 0.3162<br>0.2597 | 0.2961<br>0.2559 | 0.2816<br>0.2369 | 0.2585 | Ave | | 0.2743 | | | | 10.8 | | 20.0 | | | |
| cis-1,2-Dichloroethene | 0.2563<br>0.1874 | 0.2203<br>0.1811 | 0.1776<br>0.1783 | 0.1922<br>0.1726 | 0.1849 | Ave | | 0.1945 | | | 0.1000 | 13.9 | | 20.0 | | | |
| 2-Butanone (MEK) | 0.3367<br>0.2031 | 0.2446<br>0.2048 | 0.1957<br>0.2010 | 0.2091<br>0.1956 | 0.2009 | Lin1 | 0.1093 | 0.1985 | | | 0.0100 | 7.5 | | 30.0 | 0.9990 | | 0.9900 |
| Tetrahydrofuran | +++++<br>0.1336 | 0.1855<br>0.1355 | 0.1580<br>0.1323 | 0.1452<br>0.1312 | 0.1369 | Ave | | 0.1448 | | | | 12.9 | | 20.0 | | | |
| Chlorobromomethane | 0.1369<br>0.0830 | 0.0906<br>0.0786 | 0.0910<br>0.0798 | 0.0886<br>0.0744 | 0.0834 | Lin1 | 0.0282 | 0.0778 | | | | 8.9 | | 20.0 | 0.9980 | | 0.9900 |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Chloroform | 0.3328 0.2979 | 0.3680 0.2901 | 0.2911 0.2859 | 0.2884 0.2713 | 0.2879 | Ave | | 0.3015 | | | 0.2000 | 9.9 | | 20.0 | | | |
| Cyclohexane | 0.6332 0.5087 | 0.5484 0.5148 | 0.6155 0.5046 | 0.5709 0.4794 | 0.5311 | Ave | | 0.5452 | | | 0.1000 | 9.6 | | 20.0 | | | |
| 1,1,1-Trichloroethane | 0.3231 0.2509 | 0.2782 0.2513 | 0.2722 0.2398 | 0.2521 0.2315 | 0.2458 | Ave | | 0.2605 | | | 0.1000 | 10.6 | | 20.0 | | | |
| Carbon tetrachloride | 0.2770 0.2120 | 0.2559 0.2301 | 0.1999 0.2145 | 0.2199 0.2062 | 0.2185 | Ave | | 0.2260 | | | 0.1000 | 11.1 | | 20.0 | | | |
| 1,1-Dichloropropene | +++++ 0.2411 | 0.2398 0.2432 | 0.2160 0.2446 | 0.2585 0.2305 | 0.2456 | Ave | | 0.2399 | | | | 5.2 | | 20.0 | | | |
| Benzene | 0.6935 0.7124 | 0.7646 0.7372 | 0.7241 0.7249 | 0.7091 0.6842 | 0.7244 | Ave | | 0.7194 | | | 0.5000 | 3.3 | | 20.0 | | | |
| Isobutyl alcohol | 0.0196 0.0157 | 0.0195 0.0162 | 0.0136 0.0160 | 0.0148 0.0170 | 0.0142 | Ave | | 0.0163 | | | | 13.1 | | 20.0 | | | |
| 1,2-Dichloroethane | 0.4212 0.3091 | 0.3346 0.3088 | 0.3018 0.3109 | 0.3156 0.2946 | 0.3152 | Ave | | 0.3235 | | | 0.1000 | 11.8 | | 20.0 | | | |
| n-Heptane | +++++ 0.0385 | 0.0592 0.0420 | 0.0466 0.0379 | 0.0448 0.0363 | 0.0409 | Ave | | 0.0433 | | | | 16.9 | | 20.0 | | | |
| Trichloroethene | 0.1946 0.1891 | 0.1759 0.1850 | 0.1828 0.1803 | 0.1895 0.1735 | 0.1851 | Ave | | 0.1840 | | | 0.1500 | 3.6 | | 20.0 | | | |
| Methylcyclohexane | 0.3539 0.2654 | 0.2657 0.2738 | 0.3118 0.2656 | 0.2748 0.2570 | 0.2754 | Ave | | 0.2826 | | | 0.1000 | 10.9 | | 20.0 | | | |
| 1,2-Dichloropropane | 0.2749 0.2536 | 0.2976 0.2607 | 0.2576 0.2526 | 0.2521 0.2419 | 0.2523 | Ave | | 0.2604 | | | 0.1000 | 6.3 | | 20.0 | | | |
| Dibromomethane | 0.1667 0.0937 | 0.1389 0.0955 | 0.1050 0.0940 | 0.1022 0.0907 | 0.1013 | Lin1 | 0.0413 | 0.0926 | | | | 5.2 | | 20.0 | 0.9990 | | 0.9900 |
| 1,4-Dioxane | 0.0021 0.0027 | 0.0026 0.0024 | 0.0023 0.0028 | 0.0025 0.0025 | 0.0026 | Ave | | 0.0025 | | | | 8.9 | | 20.0 | | | |
| Dichlorobromomethane | 0.3618 0.2219 | 0.2743 0.2305 | 0.2448 0.2225 | 0.2212 0.2129 | 0.2123 | Ave | | 0.2447 | | | 0.1500 | 19.6 | | 20.0 | | | |
| 2-Chloroethyl vinyl ether | 0.1248 0.1515 | 0.1807 0.1646 | 0.1497 0.1656 | 0.1500 0.1578 | 0.1570 | Ave | | 0.1558 | | | | 9.8 | | 20.0 | | | |
| cis-1,3-Dichloropropene | 0.3514 0.3059 | 0.3043 0.3114 | 0.2756 0.3000 | 0.2983 0.2867 | 0.2970 | Ave | | 0.3034 | | | 0.1500 | 6.9 | | 20.0 | | | |
| 4-Methyl-2-pentanone (MIBK) | +++++ 0.3665 | 0.5423 0.3928 | 0.4178 0.3956 | 0.3899 0.3773 | 0.3896 | Ave | | 0.4090 | | | 0.0500 | 13.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Toluene | 1.0151<br>0.9200 | 0.9818<br>0.9242 | 0.9171<br>0.9052 | 0.9280<br>0.9218 | 0.8969 | Ave | | 0.9345 | | | 0.4000 | 4.1 | | 20.0 | | | |
| trans-1,3-Dichloropropene | 0.4239<br>0.3302 | 0.3186<br>0.3443 | 0.3216<br>0.3304 | 0.3414<br>0.3417 | 0.3294 | Ave | | 0.3424 | | | 0.1000 | 9.3 | | 20.0 | | | |
| Ethyl methacrylate | 0.4673<br>0.3033 | 0.3610<br>0.3026 | 0.3246<br>0.3078 | 0.3073<br>0.3142 | 0.3249 | Ave | | 0.3348 | | | | 15.8 | | 20.0 | | | |
| 1,1,2-Trichloroethane | 0.2583<br>0.1795 | 0.2497<br>0.1888 | 0.2091<br>0.1848 | 0.1807<br>0.1888 | 0.1899 | Ave | | 0.2033 | | | 0.1000 | 14.8 | | 20.0 | | | |
| Tetrachloroethene | 0.2519<br>0.1840 | 0.1795<br>0.1926 | 0.1880<br>0.1771 | 0.1864<br>0.1844 | 0.1904 | Ave | | 0.1927 | | | 0.1500 | 11.8 | | 20.0 | | | |
| 1,3-Dichloropropane | 0.3867<br>0.3419 | 0.4107<br>0.3582 | 0.3581<br>0.3460 | 0.3450<br>0.3536 | 0.3357 | Ave | | 0.3596 | | | | 6.7 | | 20.0 | | | |
| 2-Hexanone | 0.3793<br>0.3344 | 0.3715<br>0.3517 | 0.3033<br>0.3399 | 0.3325<br>0.3517 | 0.3360 | Ave | | 0.3445 | | | 0.0500 | 6.6 | | 20.0 | | | |
| Chlorodibromomethane | 0.2564<br>0.2011 | 0.2262<br>0.2095 | 0.1972<br>0.2017 | 0.1952<br>0.2125 | 0.2141 | Ave | | 0.2126 | | | | 9.0 | | 20.0 | | | |
| Ethylene Dibromide | +++++<br>0.1932 | 0.1840<br>0.2070 | 0.2176<br>0.2014 | 0.2250<br>0.2117 | 0.1857 | Ave | | 0.2032 | | | | 7.3 | | 20.0 | | | |
| Chlorobenzene | 0.5877<br>0.6124 | 0.6641<br>0.6293 | 0.6327<br>0.6030 | 0.6484<br>0.6150 | 0.6076 | Ave | | 0.6222 | | | 0.3000 | 3.8 | | 20.0 | | | |
| Ethylbenzene | 0.3835<br>0.3478 | 0.3703<br>0.3517 | 0.3197<br>0.3435 | 0.3544<br>0.3412 | 0.3448 | Ave | | 0.3508 | | | | 5.2 | | 20.0 | | | |
| 1,1,1,2-Tetrachloroethane | 0.1815<br>0.2079 | 0.2280<br>0.2244 | 0.2235<br>0.2154 | 0.2055<br>0.2116 | 0.2032 | Ave | | 0.2112 | | | | 6.7 | | 20.0 | | | |
| m-Xylene & p-Xylene | 0.4994<br>0.4022 | 0.3701<br>0.4154 | 0.3866<br>0.4079 | 0.4441<br>0.4064 | 0.4267 | Ave | | 0.4176 | | | | 8.9 | | 20.0 | | | |
| o-Xylene | 0.4490<br>0.4062 | 0.3677<br>0.4230 | 0.4075<br>0.4021 | 0.4004<br>0.4091 | 0.4208 | Ave | | 0.4095 | | | | 5.3 | | 20.0 | | | |
| Styrene | 0.6495<br>0.6808 | 0.7231<br>0.7013 | 0.6482<br>0.6679 | 0.6643<br>0.6922 | 0.7002 | Ave | | 0.6808 | | | 0.3000 | 3.7 | | 20.0 | | | |
| Bromoform | +++++<br>0.1540 | 0.2233<br>0.1686 | 0.1411<br>0.1573 | 0.1757<br>0.1685 | 0.1600 | Ave | | 0.1686 | | | 0.1000 | 14.6 | | 20.0 | | | |
| Isopropylbenzene | 1.2286<br>1.0060 | 1.0745<br>1.0337 | 0.9870<br>0.9895 | 1.0114<br>0.9936 | 1.0326 | Ave | | 1.0396 | | | 0.1000 | 7.3 | | 20.0 | | | |
| Bromobenzene | +++++<br>0.4415 | 0.7123<br>0.4645 | 0.4066<br>0.4568 | 0.4965<br>0.4451 | 0.4514 | Ave | | 0.4844 | | | | 19.7 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | 0.9476 0.5275 | 0.6142 0.5344 | 0.5653 0.5280 | 0.5210 0.5317 | 0.5400 | Lin1 | 0.1543 | 0.5258 | | | 0.3000 | 9.8 | | 20.0 | 1.0000 | | 0.9900 |
| N-Propylbenzene | 0.6078 0.5693 | 0.5693 0.5188 | 0.4419 0.5250 | 0.5464 0.5179 | 0.5187 | Ave | | 0.5350 | | | | 8.7 | | 20.0 | | | |
| 1,2,3-Trichloropropane | +++++ 0.1749 | 0.1391 0.1691 | 0.1787 0.1652 | 0.1607 0.1824 | 0.1693 | Ave | | 0.1674 | | | | 8.0 | | 20.0 | | | |
| trans-1,4-Dichloro-2-butene | 0.4170 0.3227 | 0.4023 0.3168 | 0.3146 0.3123 | 0.2864 0.3383 | 0.3190 | Ave | | 0.3366 | | | | 13.0 | | 20.0 | | | |
| 2-Chlorotoluene | 0.4866 0.4496 | 0.4382 0.4330 | 0.4515 0.4268 | 0.4675 0.4276 | 0.4346 | Ave | | 0.4462 | | | | 4.5 | | 20.0 | | | |
| 1,3,5-Trimethylbenzene | 1.9757 1.6367 | 1.7003 1.6423 | 1.4981 1.6157 | 1.6224 1.5835 | 1.5925 | Ave | | 1.6519 | | | | 8.1 | | 20.0 | | | |
| 4-Chlorotoluene | 0.4820 0.4771 | 0.5423 0.4486 | 0.4666 0.4498 | 0.4448 0.4446 | 0.4397 | Ave | | 0.4662 | | | | 6.9 | | 20.0 | | | |
| tert-Butylbenzene | 1.2713 1.2844 | 1.2808 1.2846 | 1.2171 1.2663 | 1.3323 1.2589 | 1.2391 | Ave | | 1.2705 | | | | 2.5 | | 20.0 | | | |
| 1,2,4-Trimethylbenzene | 1.9358 1.7277 | 1.7410 1.7294 | 1.5967 1.6498 | 1.6979 1.6438 | 1.6492 | Ave | | 1.7079 | | | | 5.8 | | 20.0 | | | |
| sec-Butylbenzene | 2.3183 1.8709 | 2.0131 1.9601 | 1.8896 1.8768 | 1.8804 1.8485 | 1.8953 | Ave | | 1.9503 | | | | 7.5 | | 20.0 | | | |
| 4-Isopropyltoluene | 1.7935 1.5889 | 1.5302 1.5795 | 1.3470 1.5474 | 1.6311 1.5265 | 1.5156 | Ave | | 1.5622 | | | | 7.5 | | 20.0 | | | |
| 1,3-Dichlorobenzene | 0.9116 0.8844 | 0.8235 0.8742 | 0.7306 0.8336 | 0.8458 0.8723 | 0.8753 | Ave | | 0.8501 | | | 0.6000 | 6.2 | | 20.0 | | | |
| 1,4-Dichlorobenzene | 0.9930 0.9126 | 0.8139 0.8917 | 0.8657 0.8769 | 0.8855 0.8791 | 0.8843 | Ave | | 0.8892 | | | 0.5000 | 5.3 | | 20.0 | | | |
| n-Butylbenzene | 1.6613 1.3494 | 1.3691 1.3609 | 1.1982 1.3279 | 1.3239 1.3089 | 1.2998 | Ave | | 1.3555 | | | | 9.2 | | 20.0 | | | |
| 1,2-Dichlorobenzene | 0.9858 0.8264 | 0.8929 0.8299 | 0.7517 0.8385 | 0.8698 0.8102 | 0.8558 | Ave | | 0.8512 | | | 0.4000 | 7.5 | | 20.0 | | | |
| 1,2-Dibromo-3-Chloropropane | +++++ 0.1492 | 0.1573 0.1482 | 0.1297 0.1500 | 0.1518 0.1614 | 0.1511 | Ave | | 0.1498 | | | 0.0500 | 6.2 | | 20.0 | | | |
| 1,2,4-Trichlorobenzene | 0.3744 0.4925 | 0.5253 0.4908 | 0.3760 0.5008 | 0.5266 0.5053 | 0.4559 | Ave | | 0.4720 | | | 0.2000 | 12.4 | | 20.0 | | | |
| Hexachlorobutadiene | 0.1939 0.1824 | 0.2150 0.1858 | 0.2092 0.1843 | 0.1839 0.1874 | 0.1729 | Ave | | 0.1905 | | | | 7.1 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

| ANALYTE | RRF | | | | | CURVE TYPE | COEFFICIENT | | | # | MIN RRF | %RSD /RSE | # | MAX %RSD /RSE | R^2 OR COD | # | MIN R^2 OR COD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 LVL 6 | LVL 2 LVL 7 | LVL 3 LVL 8 | LVL 4 LVL 9 | LVL 5 | | B | M1 | M2 | | | | | | | | |
| Naphthalene | 1.8815 1.5826 | 1.5405 1.6853 | 1.4054 1.6328 | 1.6371 1.6397 | 1.5138 | Ave | | 1.6132 | | | | 8.1 | | 20.0 | | | |
| 1,2,3-Trichlorobenzene | 0.6390 0.4486 | 0.4318 0.4579 | 0.3751 0.4580 | 0.4346 0.4567 | 0.4410 | Ave | | 0.4603 | | | | 15.6 | | 20.0 | | | |
| Dibromofluoromethane (Surr) | 0.2787 0.2599 | 0.2772 0.2718 | 0.2779 0.2637 | 0.2744 0.2600 | 0.2747 | Ave | | 0.2709 | | | | 2.8 | | 20.0 | | | |
| 1,2-Dichloroethane-d4 (Surr) | 0.3932 0.3859 | 0.3855 0.3594 | 0.3920 0.3742 | 0.3872 0.3595 | 0.3828 | Ave | | 0.3800 | | | | 3.4 | | 20.0 | | | |
| Toluene-d8 (Surr) | 1.2725 1.2686 | 1.2894 1.3136 | 1.2727 1.2598 | 1.3347 1.3256 | 1.2938 | Ave | | 1.2923 | | | | 2.1 | | 20.0 | | | |
| 4-Bromofluorobenzene (Surr) | 0.5009 0.4929 | 0.4929 0.4989 | 0.5051 0.4976 | 0.5112 0.5126 | 0.5084 | Ave | | 0.5023 | | | | 1.5 | | 20.0 | | | |

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 240-583404/3 | 1794280.D |
| Level 2 | IC 240-583404/4 | 1794281.D |
| Level 3 | IC 240-583404/5 | 1794282.D |
| Level 4 | IC 240-583404/6 | 1794283.D |
| Level 5 | IC 240-583404/7 | 1794284.D |
| Level 6 | ICIS 240-583404/8 | 1794285.D |
| Level 7 | IC 240-583404/9 | 1794286.D |
| Level 8 | IC 240-583404/10 | 1794287.D |
| Level 9 | IC 240-583404/11 | 1794288.D |

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Dichlorodifluoromethane | FB | Ave | 2717<br>133470 | 5948<br>197183 | 14655<br>266498 | 37419<br>317603 | 65691 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chloromethane | FB | Ave | 6081<br>240561 | 10151<br>361916 | 24332<br>485535 | 58833<br>590615 | 118305 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Vinyl chloride | FB | Ave | 3658<br>165245 | 7462<br>250848 | 15259<br>321893 | 39283<br>422782 | 80581 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Butadiene | FB | Ave | +++++<br>215626 | 10867<br>332538 | 23605<br>417321 | 55059<br>534631 | 109347 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Bromomethane | FB | Ave | +++++<br>23536 | 1035<br>37654 | 2887<br>51459 | 5323<br>66950 | 10949 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chloroethane | FB | Ave | +++++<br>75018 | 3272<br>115962 | 9343<br>132180 | 23825<br>145438 | 40710 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Trichlorofluoromethane | FB | Ave | 3064<br>159938 | 6761<br>245975 | 16218<br>315104 | 39400<br>391994 | 80083 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Dichlorofluoromethane | FB | Ave | 5365<br>193275 | 8405<br>301215 | 22190<br>384824 | 50302<br>494830 | 99811 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethyl ether | FB | Ave | 2751<br>120380 | 4586<br>188311 | 12548<br>254041 | 28903<br>317297 | 56418 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | FB | Lin1 | 2297<br>63136 | 3032<br>100865 | 6538<br>128763 | 16985<br>158356 | 29877 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Acrolein | FB | Lin1 | 1554<br>46322 | 3204<br>72116 | 5661<br>101622 | 11910<br>126395 | 24089 | 2.50<br>125 | 5.00<br>188 | 12.5<br>250 | 31.3<br>313 | 62.5 |
| 1,1-Dichloroethene | FB | Ave | 1941<br>73123 | 3763<br>114648 | 7448<br>145456 | 18428<br>173304 | 35224 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Acetone | FB | Lin1 | 9562<br>139187 | 13100<br>203009 | 23776<br>287518 | 37898<br>358213 | 71490 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Iodomethane | FB | Ave | 1721<br>65653 | 2968<br>104152 | 6002<br>139072 | 15140<br>176661 | 30828 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Carbon disulfide | FB | Ave | +++++<br>225692 | 10359<br>340731 | 22516<br>451059 | 58036<br>557603 | 104143 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 3-Chloro-1-propene | FB | Ave | 1116<br>52107 | 2448<br>83852 | 4416<br>106236 | 13786<br>132927 | 28510 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Methyl acetate | FB | Ave | 8964<br>371598 | 17583<br>581205 | 36127<br>769799 | 92609<br>936792 | 186161 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Methylene Chloride | FB | Lin1 | 3854<br>92479 | 6855<br>141241 | 12024<br>186821 | 24216<br>225647 | 47454 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Methyl-2-propanol | FB | Ave | 4905<br>210149 | 9797<br>325455 | 19949<br>446692 | 49355<br>580436 | 97849 | 5.00<br>250 | 10.0<br>375 | 25.0<br>500 | 62.5<br>625 | 125 |
| Methyl tert-butyl ether | FB | Ave | 5218<br>271271 | 10610<br>440150 | 25745<br>583995 | 69482<br>710613 | 136657 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| trans-1,2-Dichloroethene | FB | Ave | 2206<br>88292 | 4491<br>136894 | 9234<br>174941 | 21245<br>209568 | 39937 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Acrylonitrile | FB | Ave | 20335<br>945638 | 40069<br>1469825 | 92072<br>1944259 | 231379<br>2429625 | 464551 | 5.00<br>250 | 10.0<br>375 | 25.0<br>500 | 62.5<br>625 | 125 |
| Hexane | FB | Ave | 255<br>22349 | 764<br>31726 | 1714<br>44551 | 5408<br>54297 | 10192 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1-Dichloroethane | FB | Ave | 5329<br>232911 | 10586<br>360033 | 21676<br>480443 | 61039<br>589920 | 118784 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Vinyl acetate | FB | Ave | +++++<br>314335 | 13383<br>486399 | 31685<br>653942 | 73935<br>816185 | 144766 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2,2-Dichloropropane | FB | Ave | 3294<br>135536 | 6689<br>215084 | 15632<br>285897 | 37787<br>340890 | 68962 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| cis-1,2-Dichloroethene | FB | Ave | 2665<br>102968 | 4660<br>149978 | 9375<br>199187 | 25789<br>248403 | 49319 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Butanone (MEK) | FB | Lin1 | 7001<br>223242 | 10346<br>339163 | 20668<br>449152 | 56095<br>562997 | 107184 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Tetrahydrofuran | FB | Ave | +++++<br>146766 | 7847<br>224502 | 16685<br>295685 | 38967<br>377518 | 73040 | +++++<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Chlorobromomethane | FB | Lin1 | 1423<br>45601 | 1916<br>65117 | 4804<br>89194 | 11893<br>107096 | 22243 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chloroform | FB | Ave | 3460<br>163694 | 7785<br>240256 | 15368<br>319464 | 38695<br>390450 | 76818 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Cyclohexane | FB | Ave | 6584<br>279525 | 11599<br>426392 | 32500<br>563774 | 76590<br>689830 | 141694 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,1-Trichloroethane | FB | Ave | 3360<br>137859 | 5884<br>208164 | 14374<br>267941 | 33818<br>333097 | 65579 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Carbon tetrachloride | FB | Ave | 2880<br>116460 | 5413<br>190561 | 10555<br>239646 | 29502<br>296778 | 58295 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1-Dichloropropene | FB | Ave | +++++ | 5072 | 11406 | 34687 | 65511 | +++++ | 1.00 | 2.50 | 6.25 | 12.5 |

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| | | | 132498 | 201453 | 273342 | 331636 | | 25.0 | 37.5 | 50.0 | 62.5 | |
| Benzene | FB | Ave | 7211<br>391413 | 16174<br>610525 | 38233<br>809952 | 95132<br>984575 | 193268 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Isobutyl alcohol | CBNZd5 | Ave | 4300<br>179209 | 8779<br>273633 | 15205<br>375221 | 40117<br>473727 | 79207 | 12.5<br>625 | 25.0<br>938 | 62.5<br>1250 | 156<br>1563 | 313 |
| 1,2-Dichloroethane | FB | Ave | 4379<br>169849 | 7077<br>255750 | 15933<br>347337 | 42344<br>423997 | 84094 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| n-Heptane | FB | Ave | +++++<br>21151 | 1252<br>34771 | 2460<br>42302 | 6016<br>52207 | 10911 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Trichloroethene | FB | Ave | 2023<br>103878 | 3721<br>153212 | 9654<br>201447 | 25425<br>249691 | 49378 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Methylcyclohexane | FB | Ave | 3680<br>145845 | 5621<br>226791 | 16461<br>296760 | 36867<br>369834 | 73477 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2-Dichloropropane | FB | Ave | 2858<br>139352 | 6295<br>215957 | 13600<br>282282 | 33818<br>348073 | 67301 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Dibromomethane | FB | Lin1 | 1733<br>51495 | 2937<br>79093 | 5545<br>105030 | 13705<br>130582 | 27037 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,4-Dioxane | FB | Ave | 427<br>29433 | 1101<br>39357 | 2445<br>62822 | 6617<br>72156 | 13824 | 10.0<br>500 | 20.0<br>750 | 50.0<br>1000 | 125<br>1250 | 250 |
| Dichlorobromomethane | FB | Ave | 3762<br>121951 | 5803<br>190944 | 12927<br>248570 | 29683<br>306298 | 56638 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Chloroethyl vinyl ether | FB | Ave | 2595<br>166537 | 7644<br>272730 | 15813<br>370146 | 40241<br>454287 | 83773 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| cis-1,3-Dichloropropene | FB | Ave | 3654<br>168103 | 6436<br>257927 | 14551<br>335159 | 40025<br>412609 | 79244 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 4-Methyl-2-pentanone (MIBK) | FB | Ave | +++++<br>402715 | 22943<br>650734 | 44118<br>884027 | 104612<br>1085989 | 207867 | +++++<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Toluene | CBNZd5 | Ave | 8902<br>419736 | 17665<br>624763 | 41073<br>846782 | 100779<br>1028090 | 199883 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| trans-1,3-Dichloropropene | CBNZd5 | Ave | 3717<br>150632 | 5733<br>232708 | 14404<br>309068 | 37080<br>381124 | 73419 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethyl methacrylate | CBNZd5 | Ave | 4098<br>138380 | 6495<br>204538 | 14537<br>287967 | 33375<br>350461 | 72405 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,2-Trichloroethane | CBNZd5 | Ave | 2265<br>81906 | 4493<br>127593 | 9365<br>172900 | 19625<br>210553 | 42329 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Tetrachloroethene | CBNZd5 | Ave | 2209 | 3230 | 8422 | 20246 | 42437 | 0.500 | 1.00 | 2.50 | 6.25 | 12.5 |

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| | | | 83937 | 130204 | 165672 | 205714 | | 25.0 | 37.5 | 50.0 | 62.5 | |
| 1,3-Dichloropropane | CBNZd5 | Ave | 3391<br>156006 | 7390<br>242124 | 16038<br>323682 | 37468<br>394443 | 74819 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Hexanone | CBNZd5 | Ave | 6653<br>305114 | 13367<br>475456 | 27166<br>635989 | 72223<br>784526 | 149755 | 1.00<br>50.0 | 2.00<br>75.0 | 5.00<br>100 | 12.5<br>125 | 25.0 |
| Chlorodibromomethane | CBNZd5 | Ave | 2248<br>91738 | 4070<br>141636 | 8830<br>188636 | 21195<br>237004 | 47712 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethylene Dibromide | CBNZd5 | Ave | +++++<br>88164 | 3311<br>139937 | 9748<br>188362 | 24437<br>236111 | 41376 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Chlorobenzene | CBNZd5 | Ave | 5154<br>279404 | 11948<br>425389 | 28337<br>564029 | 70416<br>685914 | 135414 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Ethylbenzene | CBNZd5 | Ave | 3363<br>158673 | 6662<br>237715 | 14319<br>321333 | 38486<br>380587 | 76848 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,1,2-Tetrachloroethane | CBNZd5 | Ave | 1592<br>94847 | 4103<br>151697 | 10010<br>201486 | 22317<br>236034 | 45289 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| m-Xylene & p-Xylene | CBNZd5 | Ave | 4379<br>183492 | 6659<br>280824 | 17315<br>381519 | 48228<br>453267 | 95082 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| o-Xylene | CBNZd5 | Ave | 3937<br>185317 | 6615<br>285969 | 18253<br>376183 | 43479<br>456350 | 93787 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Styrene | CBNZd5 | Ave | 5696<br>310601 | 13011<br>474094 | 29030<br>624753 | 72141<br>772101 | 156043 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Bromoform | CBNZd5 | Ave | +++++<br>70251 | 4018<br>113967 | 6320<br>147149 | 19082<br>187936 | 35648 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Isopropylbenzene | CBNZd5 | Ave | 10774<br>458964 | 19332<br>698759 | 44204<br>925592 | 109838<br>1108271 | 230119 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Bromobenzene | DCBd4 | Ave | +++++<br>104004 | 6856<br>166719 | 9769<br>223141 | 28893<br>264463 | 53474 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,1,2,2-Tetrachloroethane | DCBd4 | Lin1 | 4315<br>124261 | 5912<br>191809 | 13581<br>257917 | 30316<br>315883 | 63970 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| N-Propylbenzene | DCBd4 | Ave | 2768<br>134095 | 5480<br>186194 | 10615<br>256490 | 31795<br>307714 | 61448 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| 1,2,3-Trichloropropane | DCBd4 | Ave | +++++<br>41201 | 1339<br>60673 | 4292<br>80677 | 9351<br>108369 | 20060 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| trans-1,4-Dichloro-2-butene | DCBd4 | Ave | 1899<br>76012 | 3872<br>113713 | 7558<br>152563 | 16669<br>200963 | 37787 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 2-Chlorotoluene | DCBd4 | Ave | 2216<br>105909 | 4218<br>155400 | 10847<br>208474 | 27203<br>254044 | 51481 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,3,5-Trimethylbenzene | DCBd4 | Ave | 8997<br>385528 | 16366<br>589408 | 35990<br>789295 | 94408<br>940818 | 188642 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 4-Chlorotoluene | DCBd4 | Ave | 2195<br>112379 | 5220<br>161005 | 11209<br>219735 | 25881<br>264151 | 52084 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| tert-Butylbenzene | DCBd4 | Ave | 5789<br>302525 | 12328<br>461038 | 29240<br>618612 | 77530<br>747949 | 146785 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2,4-Trimethylbenzene | DCBd4 | Ave | 8815<br>406949 | 16758<br>620694 | 38359<br>805914 | 98805<br>976615 | 195366 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| sec-Butylbenzene | DCBd4 | Ave | 10557<br>440681 | 19377<br>703489 | 45394<br>916813 | 109427<br>1098248 | 224514 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 4-Isopropyltoluene | DCBd4 | Ave | 8167<br>374258 | 14729<br>566868 | 32360<br>755936 | 94918<br>906915 | 179533 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,3-Dichlorobenzene | DCBd4 | Ave | 4151<br>208322 | 7926<br>313766 | 17552<br>407230 | 49217<br>518250 | 103684 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,4-Dichlorobenzene | DCBd4 | Ave | 4522<br>214962 | 7834<br>320033 | 20798<br>428374 | 51527<br>522316 | 104750 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| n-Butylbenzene | DCBd4 | Ave | 7565<br>317841 | 13178<br>488433 | 28784<br>648686 | 77039<br>777645 | 153971 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2-Dichlorobenzene | DCBd4 | Ave | 4489<br>194651 | 8594<br>297849 | 18059<br>409628 | 50617<br>481347 | 101373 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2-Dibromo-3-Chloropropane | DCBd4 | Ave | +++++<br>35143 | 1514<br>53196 | 3117<br>73252 | 8836<br>95894 | 17904 | +++++<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2,4-Trichlorobenzene | DCBd4 | Ave | 1705<br>116009 | 5056<br>176160 | 9032<br>244667 | 30644<br>300223 | 54001 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Hexachlorobutadiene | DCBd4 | Ave | 883<br>42967 | 2069<br>66679 | 5026<br>90029 | 10700<br>111350 | 20479 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Naphthalene | DCBd4 | Ave | 8568<br>372780 | 14828<br>604848 | 33764<br>797635 | 95267<br>974194 | 179326 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| 1,2,3-Trichlorobenzene | DCBd4 | Ave | 2910<br>105660 | 4156<br>164350 | 9012<br>223725 | 25288<br>271359 | 52244 | 0.500<br>25.0 | 1.00<br>37.5 | 2.50<br>50.0 | 6.25<br>62.5 | 12.5 |
| Dibromofluoromethane (Surr) | FB | Ave | 144906<br>142782 | 146596<br>150049 | 146718<br>147319 | 147273<br>149637 | 146601 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0 |
| 1,2-Dichloroethane-d4 (Surr) | FB | Ave | 204398<br>212018 | 203880<br>198462 | 206980<br>209066 | 207811<br>206933 | 204249 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

| ANALYTE | IS REF | CURVE TYPE | RESPONSE | | | | | CONCENTRATION (UG/L) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 | LVL 1<br>LVL 6 | LVL 2<br>LVL 7 | LVL 3<br>LVL 8 | LVL 4<br>LVL 9 | LVL 5 |
| Toluene-d8 (Surr) | CBNZd5 | Ave | 557930<br>578762 | 580005<br>591977 | 570023<br>589246 | 579812<br>591432 | 576660 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0 |
| 4-Bromofluorobenzene (Surr) | CBNZd5 | Ave | 219614<br>224892 | 221711<br>224819 | 226215<br>232746 | 222069<br>228688 | 226578 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0<br>25.0 | 25.0 |

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

Calibration Files:

| LEVEL: | LAB SAMPLE ID: | LAB FILE ID: |
|---|---|---|
| Level 1 | IC 240-583404/3 | 1794280.D |
| Level 2 | IC 240-583404/4 | 1794281.D |
| Level 3 | IC 240-583404/5 | 1794282.D |
| Level 4 | IC 240-583404/6 | 1794283.D |
| Level 5 | IC 240-583404/7 | 1794284.D |
| Level 6 | ICIS 240-583404/8 | 1794285.D |
| Level 7 | IC 240-583404/9 | 1794286.D |
| Level 8 | IC 240-583404/10 | 1794287.D |
| Level 9 | IC 240-583404/11 | 1794288.D |

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Dichlorodifluoromethane | 2.9<br>-6.2 | 10.7<br>-6.1 | 9.3<br>-13.1 | 9.8 | -3.0 | -4.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Chloromethane | 27.5<br>-4.7 | 4.6<br>-5.2 | 0.5<br>-10.5 | -4.4 | -3.3 | -4.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Vinyl chloride | 14.1<br>-1.7 | 14.5<br>-6.5 | -6.2<br>-4.7 | -5.0 | -2.0 | -2.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Butadiene | +++++<br>-3.3 | 23.8<br>-10.0 | 7.7<br>-10.5 | -1.1 | -1.2 | -5.4 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| Bromomethane | +++++<br>-0.4 | 7.2<br>0.9 | 19.8<br>1.9 | -13.1 | -10.1 | -6.2 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| Chloroethane | +++++<br>-3.2 | 6.9<br>-18.3 | 22.3<br>-30.2 * | 22.7 | 5.4 | -5.7 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| Trichlorofluoromethane | -0.2<br>0.6 | 8.2<br>-4.5 | 4.0<br>-7.8 | -0.6 | 1.6 | -1.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dichlorofluoromethane | 33.2<br>-6.1 | 2.6<br>-11.1 | 8.5<br>-11.2 | -3.2 | -3.4 | -9.2 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Ethyl ether | 16.7<br>0.3 | -4.4<br>0.3 | 4.8<br>-2.7 | -5.0 | -6.7 | -3.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 15.7<br>6.3 | -13.2<br>0.8 | -6.6<br>-3.6 | 5.3 | -4.4 | -0.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Acrolein | -22.7<br>-1.3 | 26.8<br>3.5 | 4.3<br>0.1 | -5.6 | -0.1 | -5.1 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1-Dichloroethene | 29.5<br>-4.0 | 23.4<br>-9.7 | -2.1<br>-16.4 | -4.7 | -8.4 | -7.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Acetone | -20.5<br>-3.0 | 5.5<br>3.0 | 25.6<br>0.2 | -7.6 | -1.6 | -1.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Iodomethane | 30.6<br>-0.8 | 10.7<br>-1.8 | -10.3<br>-3.1 | -10.9 | -8.8 | -5.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Carbon disulfide | +++++ -1.8 | 16.9 -3.7 | 1.8 -7.5 | 3.2 | -6.8 | -2.0 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |
| 3-Chloro-1-propene | 7.4 1.3 | 15.8 -4.9 | -16.4 -7.6 | 2.8 | 6.9 | -5.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Methyl acetate | 19.7 -2.6 | 15.4 -4.4 | -5.0 -9.6 | -4.2 | -3.1 | -6.1 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Methylene Chloride | -31.5 3.2 | 19.9 1.6 | 8.5 -4.5 | -1.4 | 3.4 | 0.7 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 2-Methyl-2-propanol | 17.1 -2.5 | 15.0 -0.8 | -6.2 0.1 | -8.7 | -9.0 | -5.1 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Methyl tert-butyl ether | -1.0 4.8 | -1.1 3.1 | -3.8 -2.6 | 2.2 | 1.0 | -2.6 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| trans-1,2-Dichloroethene | 24.3 -3.1 | 24.4 -8.2 | 2.5 -14.6 | -7.2 | -12.3 | -5.8 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Acrylonitrile | 10.1 -0.1 | 6.7 -2.0 | -1.8 -4.9 | -2.9 | -2.0 | -3.1 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Hexane | -32.7 5.0 | -1.0 9.3 | -11.0 3.5 | 10.5 | 4.8 | 11.5 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 1,1-Dichloroethane | 14.7 -2.7 | 12.0 -3.8 | -8.1 -8.3 | 1.8 | -0.4 | -5.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Vinyl acetate | +++++ 1.3 | 9.1 0.9 | 3.5 -2.2 | -5.0 | -6.4 | -1.3 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |
| 2,2-Dichloropropane | 15.5 -5.3 | 15.3 -6.7 | 7.9 -13.6 | 2.7 | -5.8 | -10.1 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| cis-1,2-Dichloroethene | 31.8 -6.9 | 13.3 -8.4 | -8.7 -11.3 | -1.2 | -5.0 | -3.7 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 2-Butanone (MEK) | 14.5 2.4 | -4.3 0.7 | -12.4 -1.9 | 0.9 | -1.0 | 1.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Tetrahydrofuran | +++++ -6.4 | 28.1 -8.6 | 9.1 -9.4 | 0.3 | -5.4 | -7.7 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |
| Chlorobromomethane | 3.3 0.0 | -19.9 1.8 | 2.4 -5.0 | 8.1 | 4.2 | 5.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Chloroform | 10.4 -3.8 | 22.1 -5.2 | -3.5 -10.0 | -4.3 | -4.5 | -1.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Cyclohexane | 16.1 -5.6 | 0.6 -7.4 | 12.9 -12.1 | 4.7 | -2.6 | -6.7 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 1,1,1-Trichloroethane | 24.0 -3.5 | 6.8 -8.0 | 4.5 -11.2 | -3.3 | -5.7 | -3.7 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Carbon tetrachloride | 22.6 1.8 | 13.2 -5.1 | -11.5 -8.7 | -2.7 | -3.3 | -6.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 1,1-Dichloropropene | +++++ 1.4 | -0.1 2.0 | -10.0 -3.9 | 7.8 | 2.3 | 0.5 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Benzene | -3.6<br>2.5 | 6.3<br>0.8 | 0.7<br>-4.9 | -1.4 | 0.7 | -1.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Isobutyl alcohol | 20.4<br>-0.6 | 19.8<br>-1.5 | -16.7<br>4.3 | -9.3 | -12.7 | -3.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichloroethane | 30.2<br>-4.6 | 3.4<br>-3.9 | -6.7<br>-8.9 | -2.4 | -2.6 | -4.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| n-Heptane | +++++<br>-3.0 | 36.8<br>-12.5 | 7.7<br>-16.1 | 3.6 | -5.5 | -11.0 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| Trichloroethene | 5.8<br>0.6 | -4.4<br>-2.0 | -0.6<br>-5.7 | 3.0 | 0.6 | 2.8 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Methylcyclohexane | 25.2<br>-3.1 | -6.0<br>-6.0 | 10.3<br>-9.1 | -2.8 | -2.5 | -6.1 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichloropropane | 5.6<br>0.1 | 14.3<br>-3.0 | -1.1<br>-7.1 | -3.2 | -3.1 | -2.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dibromomethane | -9.2<br>1.9 | 5.4<br>0.6 | -4.4<br>-2.7 | 3.2 | 5.9 | -0.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,4-Dioxane | -17.5<br>-4.5 | 4.6<br>12.9 | -7.0<br>0.7 | -0.9 | 4.1 | 7.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dichlorobromomethane | 47.9<br>-5.8 | 12.1<br>-9.1 | 0.0<br>-13.0 | -9.6 | -13.2 | -9.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 2-Chloroethyl vinyl ether | -19.9<br>5.7 | 16.0<br>6.3 | -3.9<br>1.3 | -3.7 | 0.8 | -2.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| cis-1,3-Dichloropropene | 15.8<br>2.6 | 0.3<br>-1.1 | -9.2<br>-5.5 | -1.7 | -2.1 | 0.8 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 4-Methyl-2-pentanone (MIBK) | +++++<br>-3.9 | 32.6<br>-3.3 | 2.2<br>-7.7 | -4.7 | -4.7 | -10.4 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| Toluene | 8.6<br>-1.1 | 5.1<br>-3.1 | -1.9<br>-1.4 | -0.7 | -4.0 | -1.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| trans-1,3-Dichloropropene | 23.8<br>0.5 | -6.9<br>-3.5 | -6.1<br>-0.2 | -0.3 | -3.8 | -3.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Ethyl methacrylate | 39.6<br>-9.6 | 7.8<br>-8.0 | -3.0<br>-6.1 | -8.2 | -3.0 | -9.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,1,2-Trichloroethane | 27.1<br>-7.2 | 22.8<br>-9.1 | 2.9<br>-7.1 | -11.1 | -6.6 | -11.7 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Tetrachloroethene | 30.7<br>-0.1 | -6.8<br>-8.1 | -2.4<br>-4.3 | -3.3 | -1.2 | -4.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,3-Dichloropropane | 7.5<br>-0.4 | 14.2<br>-3.8 | -0.4<br>-1.6 | -4.0 | -6.6 | -4.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 2-Hexanone | 10.1<br>2.1 | 7.8<br>-1.3 | -12.0<br>2.1 | -3.5 | -2.5 | -2.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Chlorodibromomethane | 20.6<br>-1.5 | 6.4<br>-5.2 | -7.3<br>-0.1 | -8.2 | 0.7 | -5.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1 | Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 | GC Column: DB-624 | ID: 0.18(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 | Calibration End Date: 08/09/2023 17:30 | Calibration ID: 71476

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| Ethylene Dibromide | +++++ 1.9 | -9.4 -0.9 | 7.1 4.2 | 10.7 | -8.6 | -4.9 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |
| Chlorobenzene | -5.5 1.1 | 6.7 -3.1 | 1.7 -1.2 | 4.2 | -2.3 | -1.6 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Ethylbenzene | 9.3 0.3 | 5.6 -2.1 | -8.9 -2.7 | 1.0 | -1.7 | -0.8 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 1,1,1,2-Tetrachloroethane | -14.1 6.2 | 8.0 2.0 | 5.8 0.2 | -2.7 | -3.8 | -1.6 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| m-Xylene & p-Xylene | 19.6 -0.5 | -11.4 -2.3 | -7.4 -2.7 | 6.3 | 2.2 | -3.7 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| o-Xylene | 9.6 3.3 | -10.2 -1.8 | -0.5 -0.1 | -2.2 | 2.8 | -0.8 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Styrene | -4.6 3.0 | 6.2 -1.9 | -4.8 1.7 | -2.4 | 2.8 | 0.0 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Bromoform | +++++ 0.0 | 32.5 -6.7 | -16.3 0.0 | 4.2 | -5.1 | -8.6 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |
| Isopropylbenzene | 18.2 -0.6 | 3.3 -4.8 | -5.1 -4.4 | -2.7 | -0.7 | -3.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| Bromobenzene | +++++ -4.1 | 47.1 -5.7 | -16.0 -8.1 | 2.5 | -6.8 | -8.8 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |
| 1,1,2,2-Tetrachloroethane | 21.5 0.9 | -12.5 -0.2 | -4.2 0.6 | -5.6 | 0.4 | -0.8 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| N-Propylbenzene | 13.6 -3.0 | 6.4 -1.9 | -17.4 -3.2 | 2.1 | -3.0 | 6.4 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 1,2,3-Trichloropropane | +++++ 1.0 | -16.9 -1.4 | 6.7 9.0 | -4.0 | 1.2 | 4.5 | 30 | 50 30 | 30 30 | 30 | 30 | 30 |
| trans-1,4-Dichloro-2-butene | 23.9 -5.9 | 19.5 -7.2 | -6.5 0.5 | -14.9 | -5.2 | -4.1 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 2-Chlorotoluene | 9.1 -3.0 | -1.8 -4.3 | 1.2 -4.2 | 4.8 | -2.6 | 0.8 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 1,3,5-Trimethylbenzene | 19.6 -0.6 | 2.9 -2.2 | -9.3 -4.1 | -1.8 | -3.6 | -0.9 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 4-Chlorotoluene | 3.4 -3.8 | 16.3 -3.5 | 0.1 -4.6 | -4.6 | -5.7 | 2.3 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| tert-Butylbenzene | 0.1 1.1 | 0.8 -0.3 | -4.2 -0.9 | 4.9 | -2.5 | 1.1 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 1,2,4-Trimethylbenzene | 13.3 1.3 | 1.9 -3.4 | -6.5 -3.8 | -0.6 | -3.4 | 1.2 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| sec-Butylbenzene | 18.9 0.5 | 3.2 -3.8 | -3.1 -5.2 | -3.6 | -2.8 | -4.1 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |
| 4-Isopropyltoluene | 14.8 1.1 | -2.0 -0.9 | -13.8 -2.3 | 4.4 | -3.0 | 1.7 | 50 30 | 30 30 | 30 30 | 30 | 30 | 30 |

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: Eurofins Cleveland Job No.: 240-191867-1 Analy Batch No.: 583404

SDG No.:

Instrument ID: A3UX17 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/09/2023 14:24 Calibration End Date: 08/09/2023 17:30 Calibration ID: 71476

| ANALYTE | PERCENT ERROR | | | | | | PERCENT ERROR LIMIT | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LVL 1 # LVL 7 # | LVL 2 # LVL 8 # | LVL 3 # LVL 9 # | LVL 4 # | LVL 5 # | LVL 6 # | LVL 1 LVL 7 | LVL 2 LVL 8 | LVL 3 LVL 9 | LVL 4 | LVL 5 | LVL 6 |
| 1,3-Dichlorobenzene | 7.2<br>2.8 | -3.1<br>-1.9 | -14.1<br>2.6 | -0.5 | 3.0 | 4.0 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,4-Dichlorobenzene | 11.7<br>0.3 | -8.5<br>-1.4 | -2.6<br>-1.1 | -0.4 | -0.6 | 2.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| n-Butylbenzene | 22.6<br>0.4 | 1.0<br>-2.0 | -11.6<br>-3.4 | -2.3 | -4.1 | -0.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichlorobenzene | 15.8<br>-2.5 | 4.9<br>-1.5 | -11.7<br>-4.8 | 2.2 | 0.5 | -2.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dibromo-3-Chloropropane | +++++<br>-1.1 | 5.0<br>0.1 | -13.4<br>7.7 | 1.3 | 0.9 | -0.4 | <br>30 | 50<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2,4-Trichlorobenzene | -20.7<br>4.0 | 11.3<br>6.1 | -20.3<br>7.1 | 11.6 | -3.4 | 4.4 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Hexachlorobutadiene | 1.8<br>-2.5 | 12.8<br>-3.3 | 9.8<br>-1.6 | -3.5 | -9.3 | -4.3 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Naphthalene | 16.6<br>4.5 | -4.5<br>1.2 | -12.9<br>1.6 | 1.5 | -6.2 | -1.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2,3-Trichlorobenzene | 38.8<br>-0.5 | -6.2<br>-0.5 | -18.5<br>-0.8 | -5.6 | -4.2 | -2.5 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Dibromofluoromethane (Surr) | 2.9<br>0.3 | 2.3<br>-2.7 | 2.6<br>-4.0 | 1.3 | 1.4 | -4.1 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 1,2-Dichloroethane-d4 (Surr) | 3.5<br>-5.4 | 1.5<br>-1.5 | 3.2<br>-5.4 | 1.9 | 0.7 | 1.6 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| Toluene-d8 (Surr) | -1.5<br>1.6 | -0.2<br>-2.5 | -1.5<br>2.6 | 3.3 | 0.1 | -1.8 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |
| 4-Bromofluorobenzene (Surr) | -0.3<br>-0.7 | -1.9<br>-0.9 | 0.6<br>2.1 | 1.8 | 1.2 | -1.9 | 50<br>30 | 30<br>30 | 30<br>30 | 30 | 30 | 30 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 09-Aug-2023 14:24:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-003
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:09 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 08:14:36

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 97 | 519883 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 438458 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 96 | 227689 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.903 | 0.000 | 94 | 144906 | 25.0 | 25.7 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 204398 | 25.0 | 25.9 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 557930 | 25.0 | 24.6 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 90 | 219614 | 25.0 | 24.9 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 29 | 2717 | 0.5000 | 0.5145 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 91 | 6081 | 0.5000 | 0.6377 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 30 | 3658 | 0.5000 | 0.5707 | |
| 12 Butadiene | 54 | | 1.551 | | | | ND | ND | U |
| 13 Bromomethane | 94 | | 1.824 | | | | ND | ND | U |
| 14 Chloroethane | 64 | | 1.930 | | | | ND | ND | U |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 80 | 3064 | 0.5000 | 0.4989 | |
| 15 Dichlorofluoromethane | 67 | 2.179 | 2.179 | 0.000 | 45 | 5365 | 0.5000 | 0.6660 | |
| 17 Ethyl ether | 59 | 2.523 | 2.511 | 0.012 | 65 | 2751 | 0.5000 | 0.5836 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 33 | 2297 | 0.5000 | 0.5786 | |
| 18 Acrolein | 56 | 2.760 | 2.749 | 0.011 | 48 | 1554 | 2.50 | 1.93 | |
| 19 1,1-Dichloroethene | 96 | 2.760 | 2.749 | 0.011 | 91 | 1941 | 0.5000 | 0.6476 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 40 | 1721 | 0.5000 | 0.6531 | |
| 22 Acetone | 43 | 2.962 | 2.950 | 0.012 | 96 | 9562 | 1.00 | 0.7950 | |
| 24 Carbon disulfide | 76 | | 2.974 | | | | ND | ND | U |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 48 | 1116 | 0.5000 | 0.5368 | |
| 26 Methyl acetate | 43 | 3.341 | 3.341 | 0.000 | 98 | 8964 | 1.00 | 1.20 | |
| 28 Methylene Chloride | 84 | 3.496 | 3.496 | 0.000 | 91 | 3854 | 0.5000 | 0.3423 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 54 | 4905 | 5.00 | 5.85 | |
| 31 Methyl tert-butyl ether | 73 | 3.816 | 3.804 | 0.012 | 81 | 5218 | 0.5000 | 0.4949 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.828 | 3.816 | 0.012 | 86 | 2206 | 0.5000 | 0.6217 | |
| 30 Acrylonitrile | 53 | 4.017 | 4.017 | 0.000 | 97 | 20335 | 5.00 | 5.51 | |
| 33 Hexane | 86 | 4.124 | 4.136 | -0.012 | 68 | 255 | 0.5000 | 0.3363 | |
| 35 1,1-Dichloroethane | 63 | 4.551 | 4.551 | 0.000 | 90 | 5329 | 0.5000 | 0.5734 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | | 4.646 | | | | ND | ND | U |
| 42 2,2-Dichloropropane | 77 | 5.274 | 5.274 | 0.000 | 16 | 3294 | 0.5000 | 0.5776 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 38 | 2665 | 0.5000 | 0.6588 | |
| 39 2-Butanone (MEK) | 43 | 5.405 | 5.405 | 0.000 | 30 | 7001 | 1.00 | 1.15 | |
| 46 Tetrahydrofuran | 42 | | 5.606 | | | | ND | ND | U |
| 45 Chlorobromomethane | 128 | 5.606 | 5.618 | -0.012 | 72 | 1423 | 0.5000 | 0.5163 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 52 | 3460 | 0.5000 | 0.5519 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 72 | 6584 | 0.5000 | 0.5807 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 86 | 3360 | 0.5000 | 0.6201 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 88 | 2880 | 0.5000 | 0.6128 | |
| 50 1,1-Dichloropropene | 75 | | 6.010 | | | | ND | ND | U |
| 53 Benzene | 78 | 6.235 | 6.223 | 0.012 | 94 | 7211 | 0.5000 | 0.4820 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 29 | 4300 | 12.5 | 15.0 | a |
| 54 1,2-Dichloroethane | 62 | 6.354 | 6.354 | 0.000 | 90 | 4379 | 0.5000 | 0.6509 | |
| 57 n-Heptane | 100 | | 6.448 | | | | ND | ND | U |
| 59 Trichloroethene | 130 | 6.899 | 6.887 | 0.012 | 87 | 2023 | 0.5000 | 0.5288 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 83 | 3680 | 0.5000 | 0.6262 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 81 | 2858 | 0.5000 | 0.5279 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 41 | 1733 | 0.5000 | 0.4542 | a |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.000 | 31 | 427 | 10.0 | 8.25 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 33 | 3762 | 0.5000 | 0.7393 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 69 | 2595 | 1.00 | 0.8011 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.824 | 7.836 | -0.012 | 87 | 3654 | 0.5000 | 0.5791 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | | 7.978 | | | | ND | ND | U |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 95 | 8902 | 0.5000 | 0.5432 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 81 | 3717 | 0.5000 | 0.6190 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 55 | 4098 | 0.5000 | 0.6979 | |
| 74 1,1,2-Trichloroethane | 97 | 8.512 | 8.500 | 0.012 | 70 | 2265 | 0.5000 | 0.6353 | |
| 75 Tetrachloroethene | 164 | 8.524 | 8.512 | 0.012 | 72 | 2209 | 0.5000 | 0.6536 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 87 | 3391 | 0.5000 | 0.5377 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 86 | 6653 | 1.00 | 1.10 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 29 | 2248 | 0.5000 | 0.6028 | |
| 81 Ethylene Dibromide | 107 | | 8.915 | | | | ND | ND | U |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 92 | 5154 | 0.5000 | 0.4723 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.377 | 0.000 | 95 | 3363 | 0.5000 | 0.5467 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 36 | 1592 | 0.5000 | 0.4297 | a |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 91 | 4379 | 0.5000 | 0.5979 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 95 | 3937 | 0.5000 | 0.5481 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 86 | 5696 | 0.5000 | 0.4770 | |
| 89 Bromoform | 173 | | 10.030 | | | | ND | ND | U |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 94 | 10774 | 0.5000 | 0.5909 | |
| 95 Bromobenzene | 156 | | 10.409 | | | | ND | ND | U |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 45 | 4315 | 0.5000 | 0.6076 | |
| 97 N-Propylbenzene | 120 | 10.468 | 10.468 | 0.000 | 96 | 2768 | 0.5000 | 0.5681 | |
| 96 1,2,3-Trichloropropane | 110 | | 10.492 | | | | ND | ND | U |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 59 | 1899 | 0.5000 | 0.6194 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 92 | 2216 | 0.5000 | 0.5454 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 92 | 8997 | 0.5000 | 0.5980 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 95 | 2195 | 0.5000 | 0.5170 | |
| 102 tert-Butylbenzene | 119 | 10.883 | 10.883 | 0.000 | 89 | 5789 | 0.5000 | 0.5003 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.931 | 10.943 | -0.012 | 93 | 8815 | 0.5000 | 0.5667 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 95 | 10557 | 0.5000 | 0.5943 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 96 | 8167 | 0.5000 | 0.5740 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 66 | 4151 | 0.5000 | 0.5361 | |
| 109 1,4-Dichlorobenzene | 146 | 11.275 | 11.287 | -0.012 | 34 | 4522 | 0.5000 | 0.5584 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 92 | 7565 | 0.5000 | 0.6128 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 86 | 4489 | 0.5000 | 0.5790 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | | 12.283 | | | | ND | ND | U |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 24 | 1705 | 0.5000 | 0.3967 | a |
| 118 Hexachlorobutadiene | 225 | 13.030 | 13.042 | -0.012 | 1 | 883 | 0.5000 | 0.5089 | a |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 97 | 8568 | 0.5000 | 0.5832 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 85 | 2910 | 0.5000 | 0.6941 | |
| S 126 Total BTEX | 1 | | | | 0 | | 2.50 | 2.72 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 2.00 | 1.89 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 1.28 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 1.20 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 1.00 | 1.15 | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

U - Marked Undetected

a - User Assigned ID

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 0.40 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 0.40 | Units: uL | |
| VMRPRIMW_00543 | Amount Added: | 0.40 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

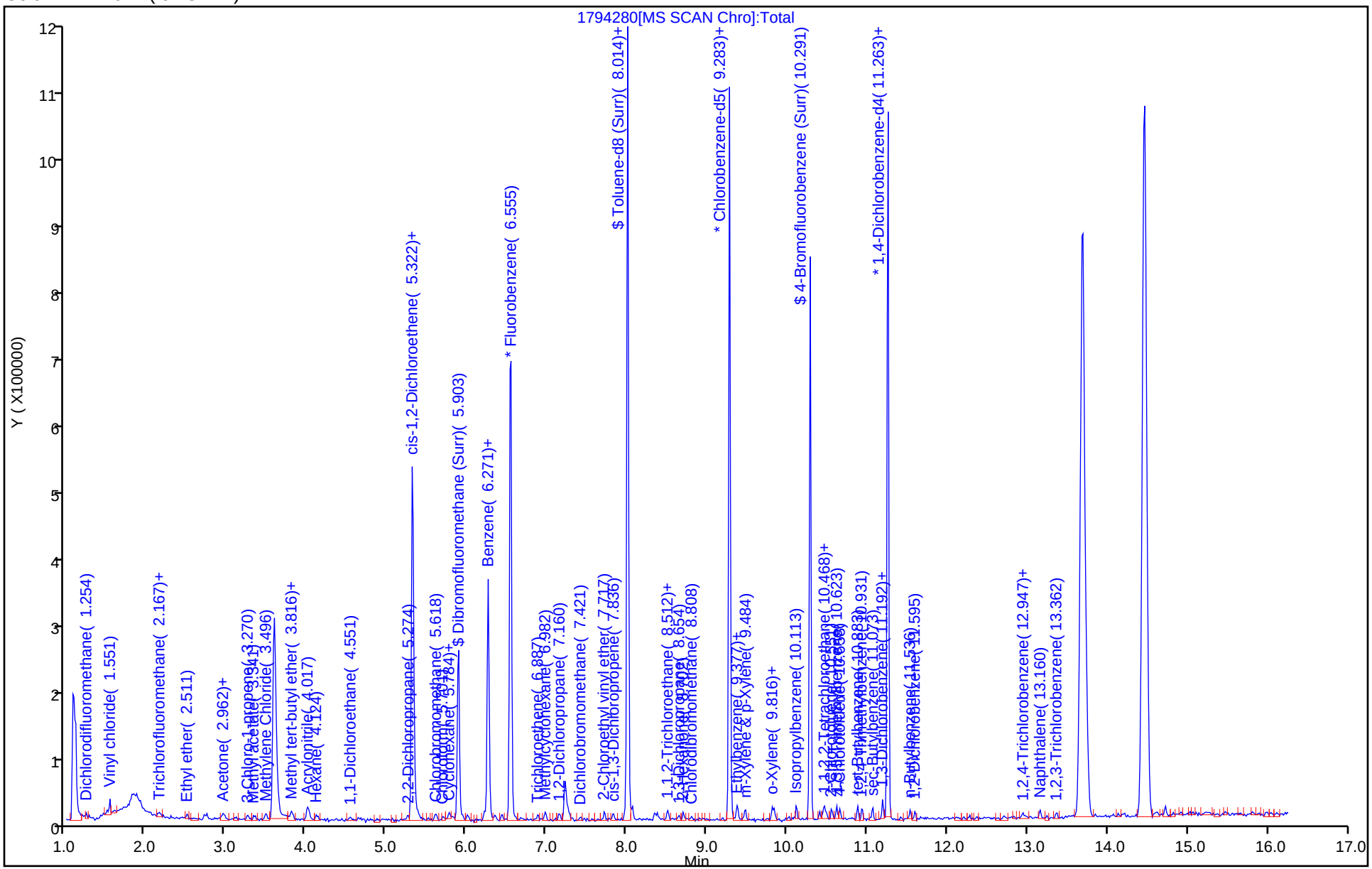
Report Date: 10-Aug-2023 14:52:10 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Cleveland

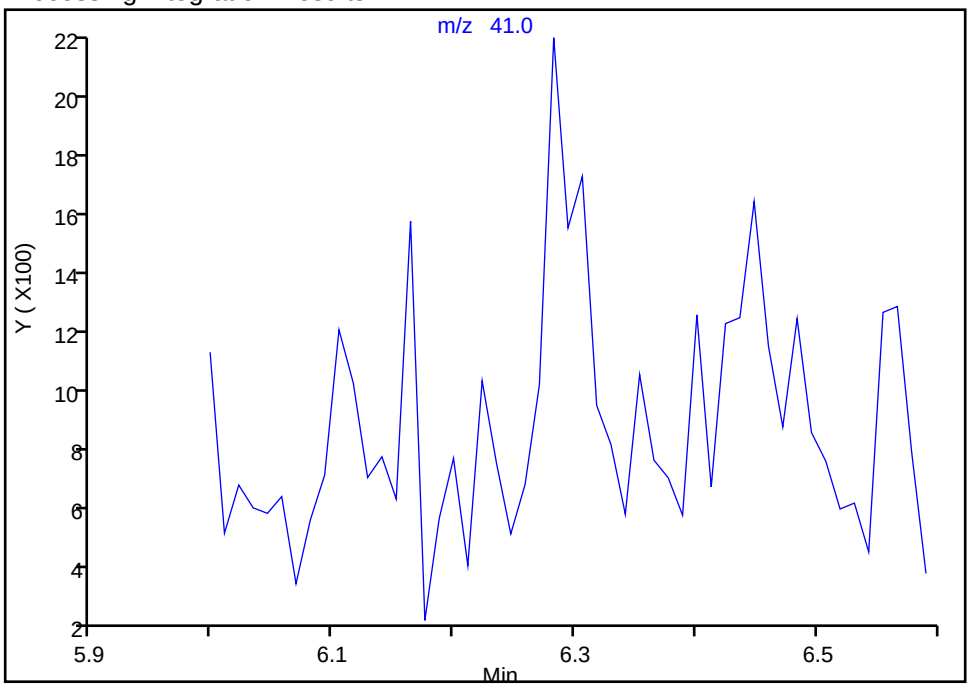
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 52 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

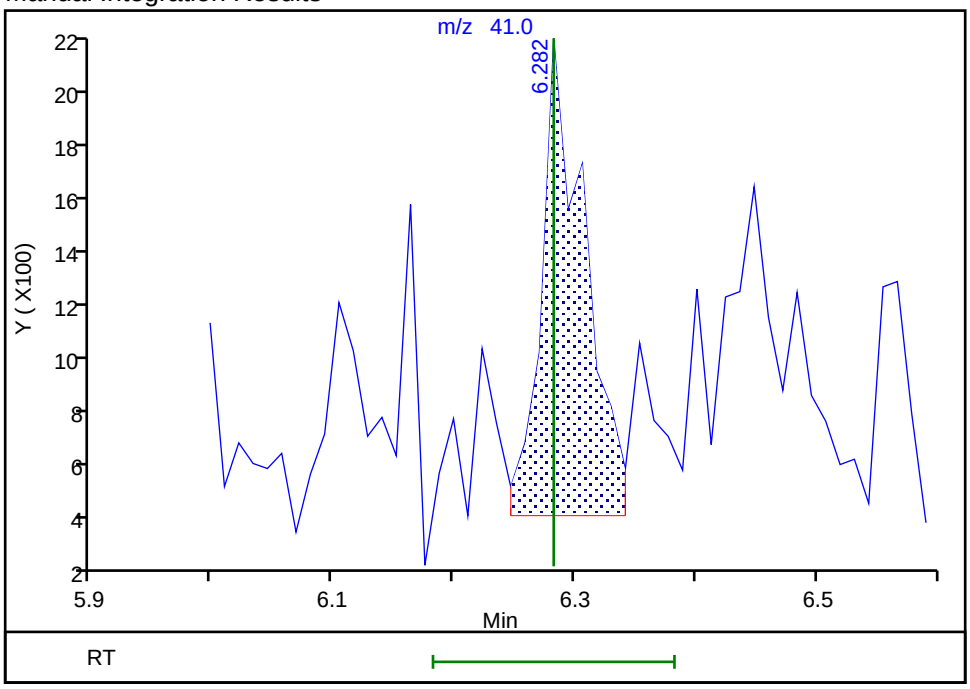
Not Detected
Expected RT: 6.28

Processing Integration Results




Manual Integration Results

RT: 6.28
Area: 4300
Amount: 15.047582
Amount Units: ug/l




Reviewer: HE9L, 10-Aug-2023 09:29:06 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Cleveland

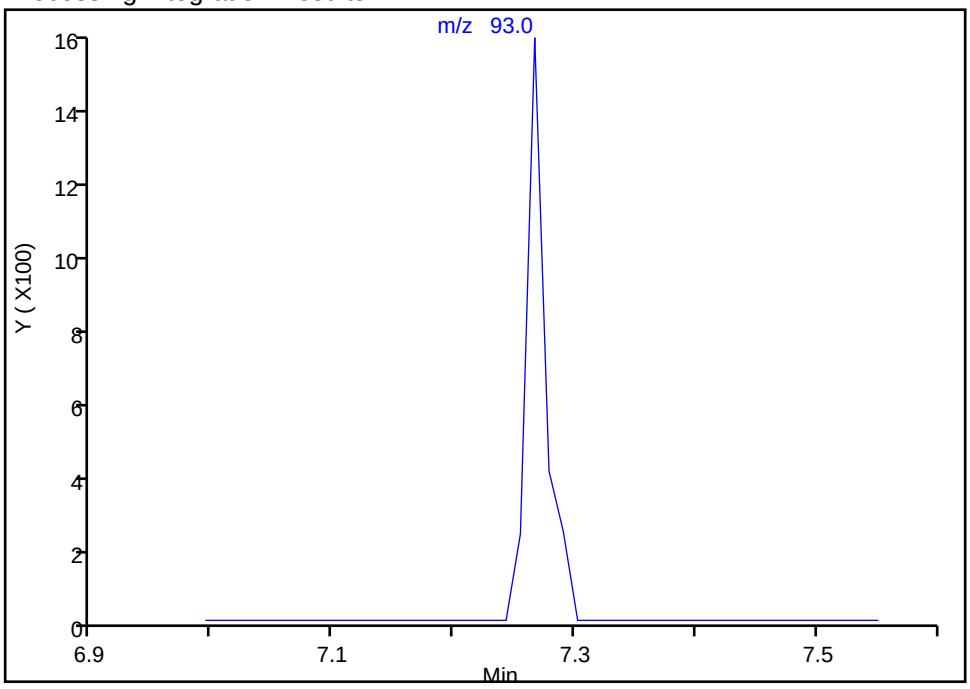
Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 65 Dibromomethane, CAS: 74-95-3

Signal: 1

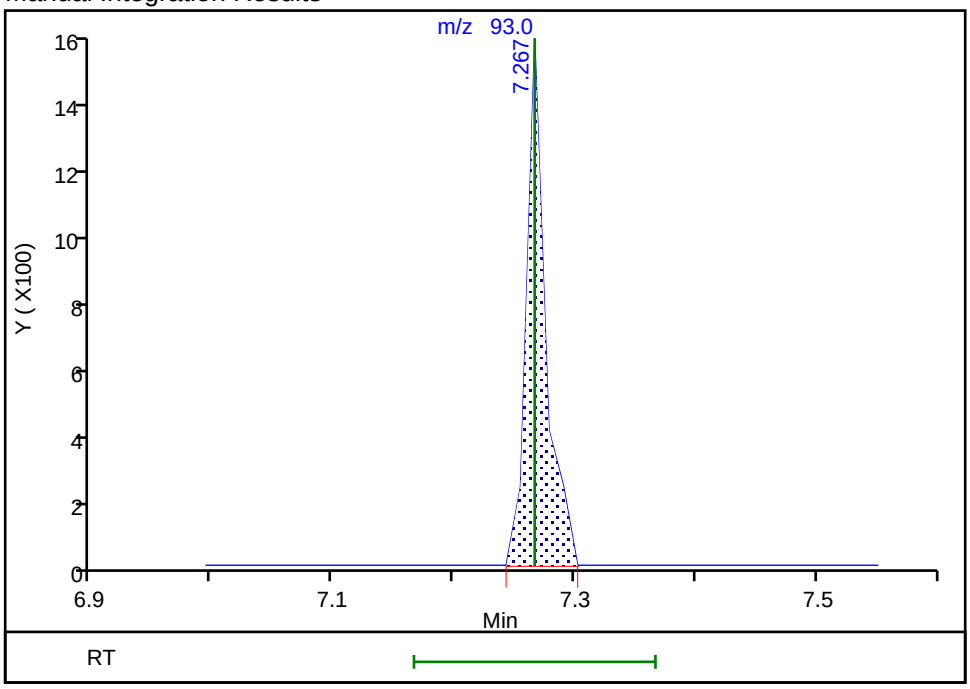
Not Detected
Expected RT: 7.27

Processing Integration Results




Manual Integration Results

RT: 7.27
Area: 1733
Amount: 0.454157
Amount Units: ug/l




Reviewer: HE9L, 10-Aug-2023 09:29:39 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Cleveland

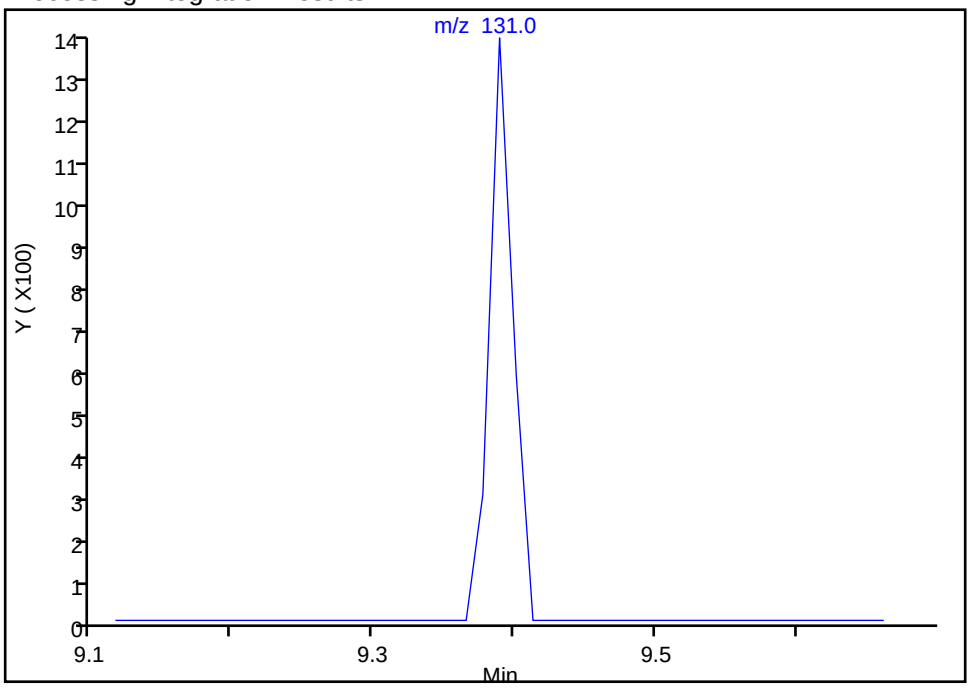
Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 84 1,1,1,2-Tetrachloroethane, CAS: 630-20-6

Signal: 1

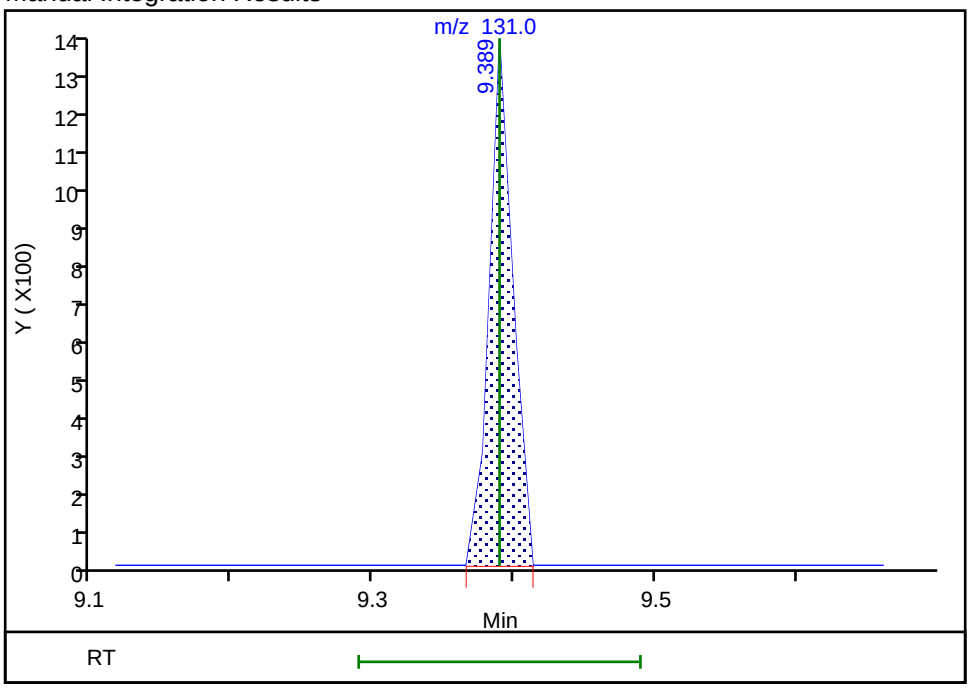
Not Detected
Expected RT: 9.39

Processing Integration Results




Manual Integration Results

RT: 9.39
Area: 1592
Amount: 0.429723
Amount Units: ug/l




Reviewer: HE9L, 10-Aug-2023 09:30:05 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Cleveland

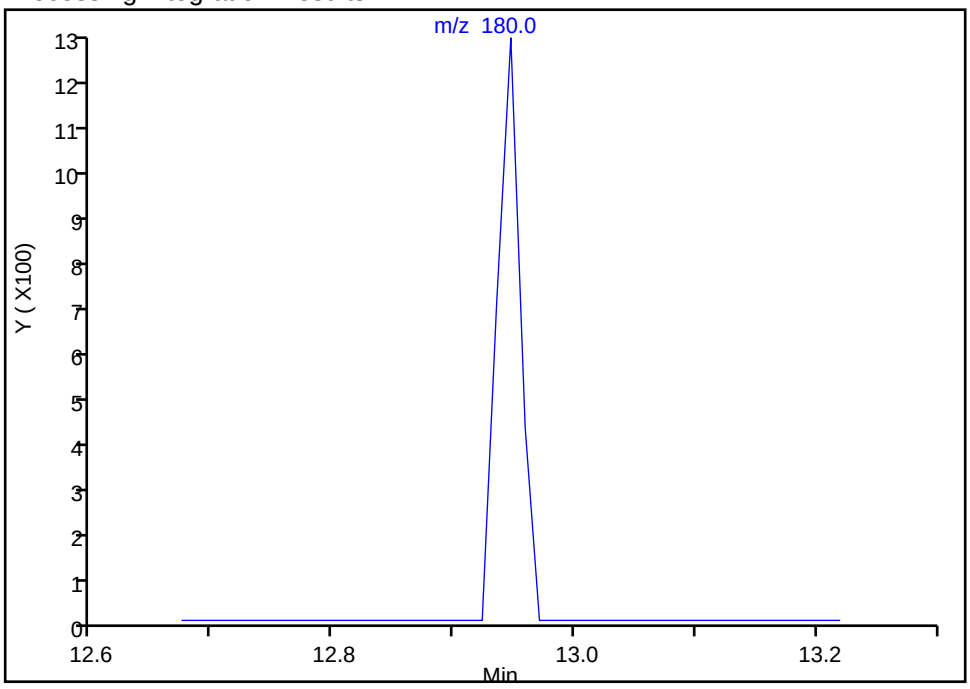
Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 117 1,2,4-Trichlorobenzene, CAS: 120-82-1

Signal: 1

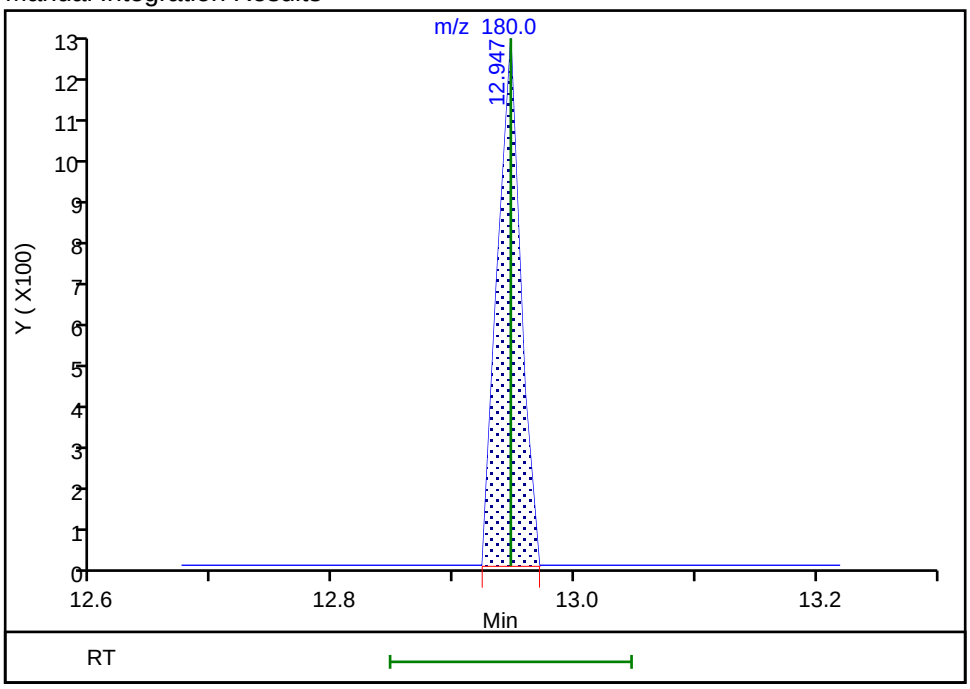
Not Detected
Expected RT: 12.95

Processing Integration Results




Manual Integration Results

RT: 12.95
Area: 1705
Amount: 0.396659
Amount Units: ug/l




Reviewer: HE9L, 10-Aug-2023 09:31:02 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Cleveland

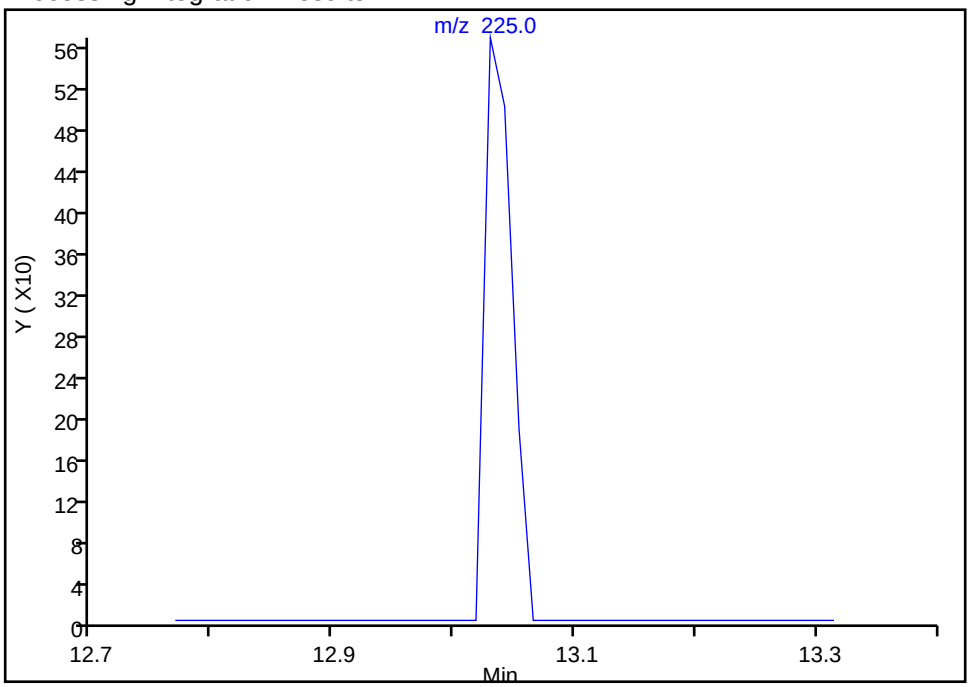
Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 118 Hexachlorobutadiene, CAS: 87-68-3

Signal: 1

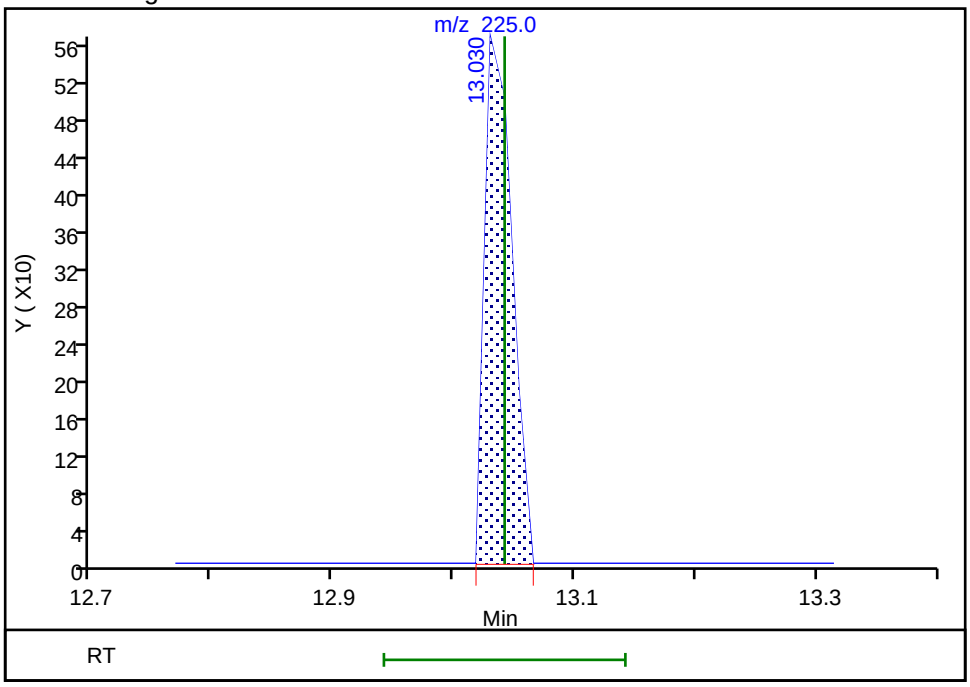
Not Detected
Expected RT: 13.04

Processing Integration Results




Manual Integration Results

RT: 13.03
Area: 883
Amount: 0.508866
Amount Units: ug/l




Reviewer: HE9L, 10-Aug-2023 09:31:12 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

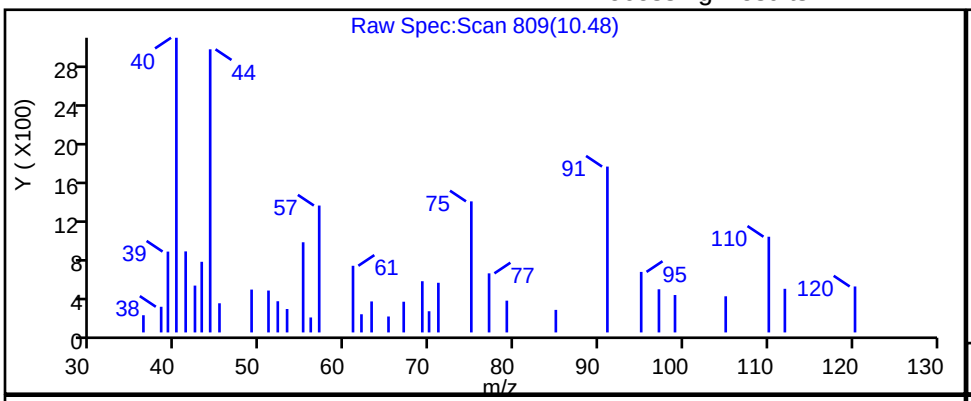
User Disabled Compound Report

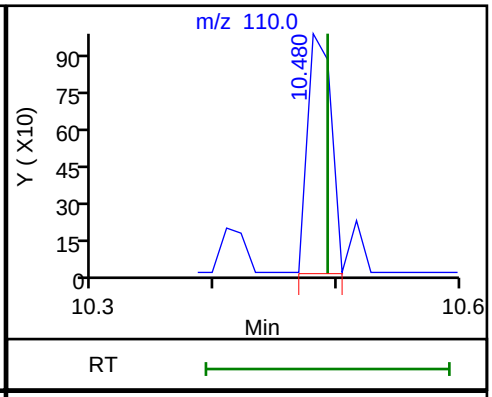
Eurofins Cleveland

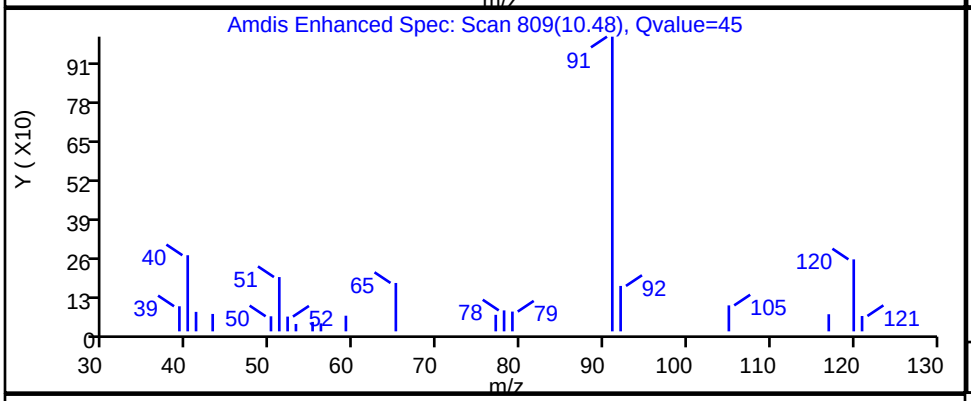
Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

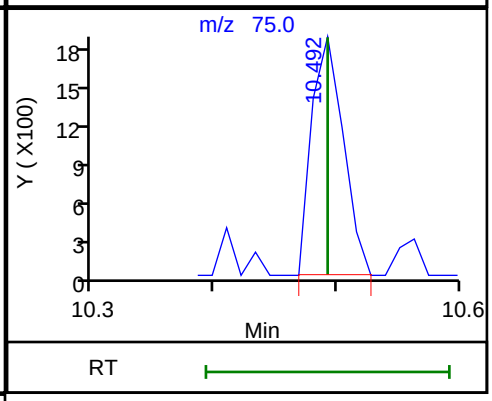
## 96 1,2,3-Trichloropropane, CAS: 96-18-4

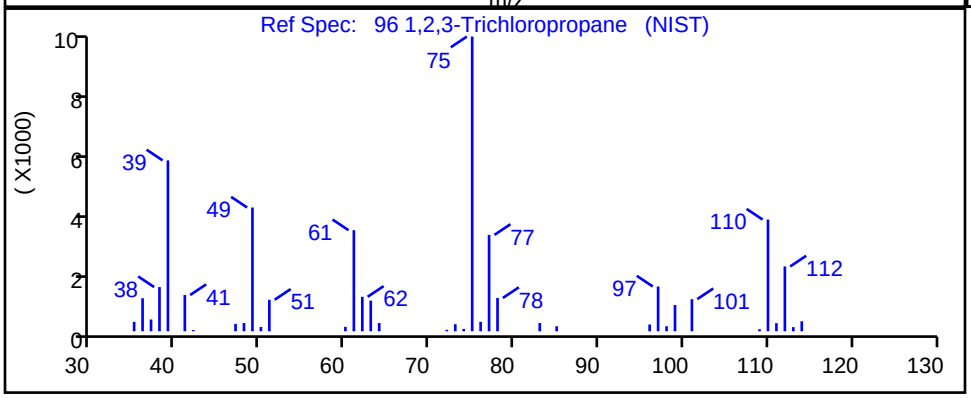
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 10.48 | 110.00 | 1326 | 0.869652 |
| 10.49 | 75.00 | 3292 | |

Reviewer: HE9L, 10-Aug-2023 10:40:03 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

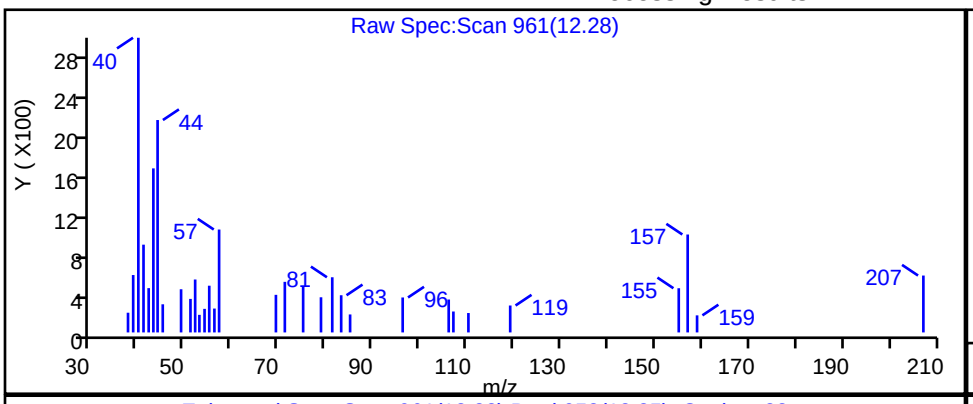
User Disabled Compound Report

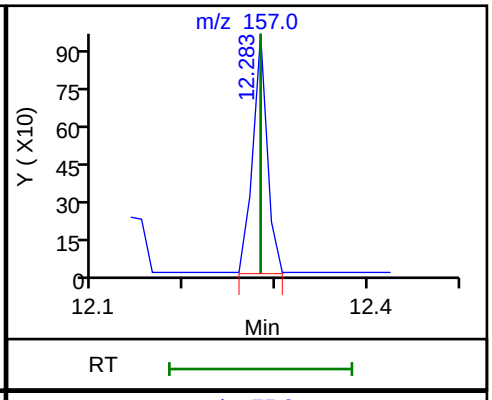
Eurofins Cleveland

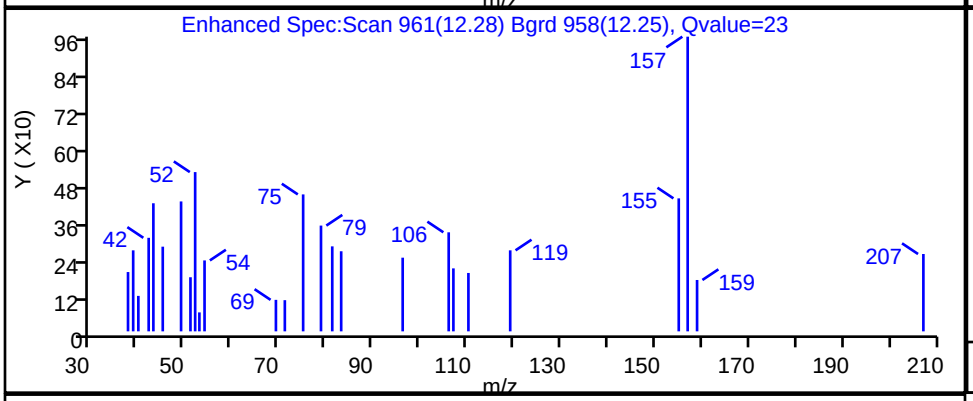
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

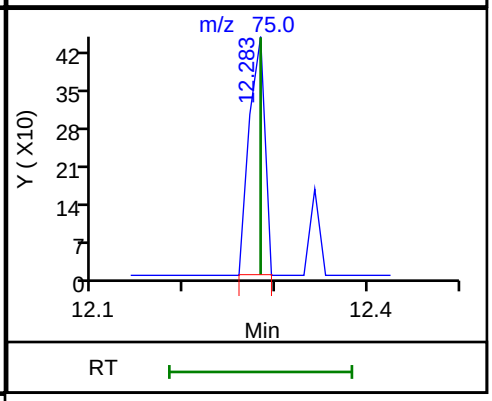
## 115 1,2-Dibromo-3-Chloropropane, CAS: 96-12-8

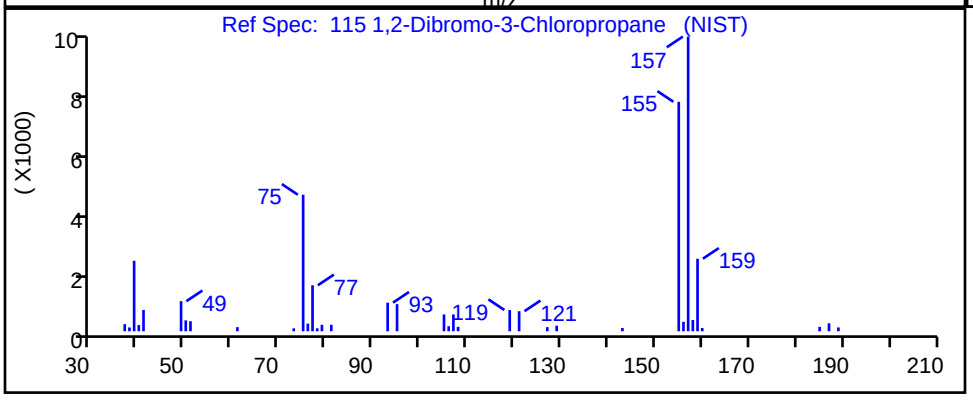
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 12.28 | 157.00 | 1049 | 0.768630 |
| 12.28 | 75.00 | 534 | |

Reviewer: HE9L, 10-Aug-2023 10:40:21 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

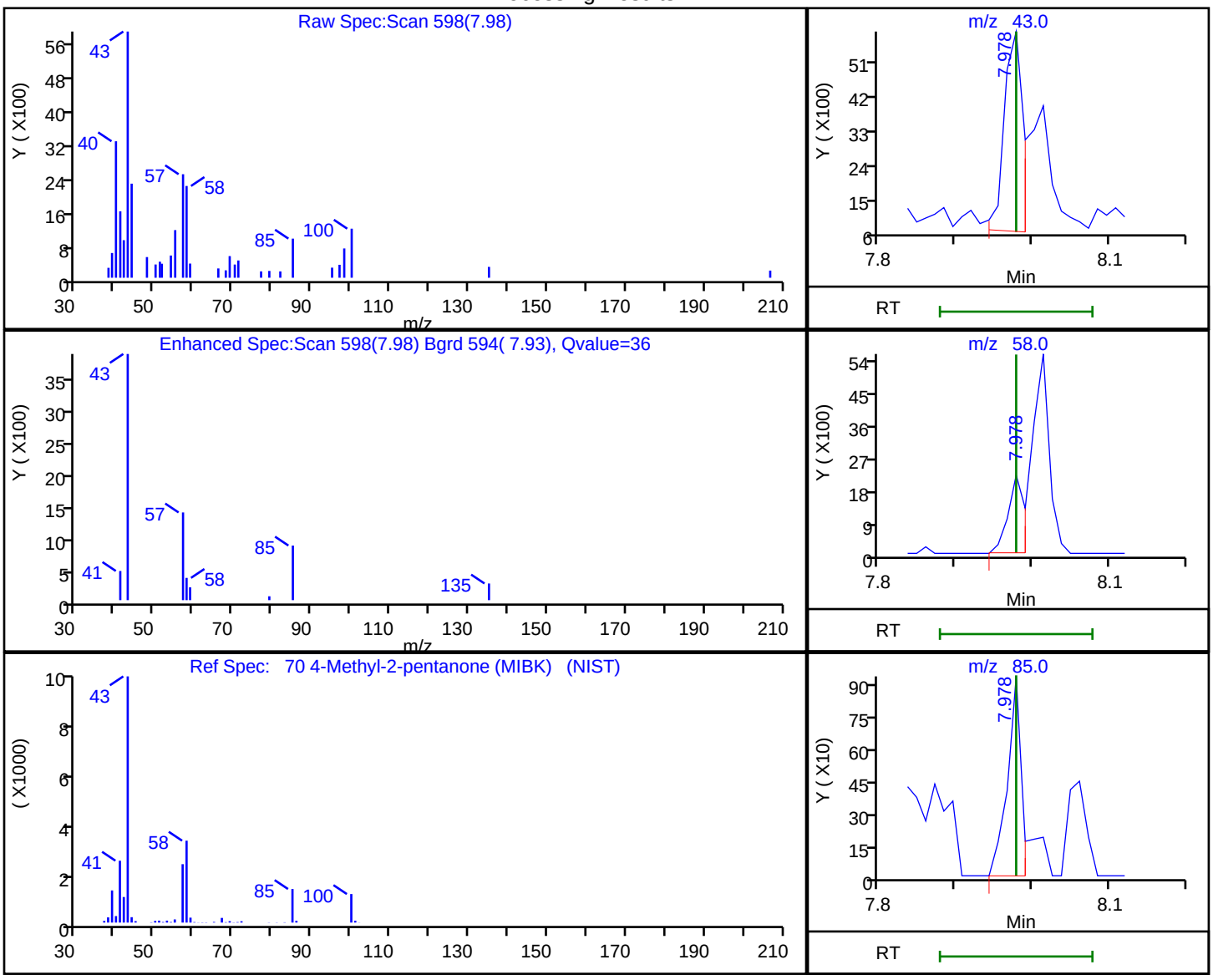
User Disabled Compound Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 70 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 7.98 | 43.00 | 9114 | 1.071639 |
| 7.98 | 58.00 | 3306 | |
| 7.98 | 85.00 | 1171 | |

Reviewer: HE9L, 10-Aug-2023 10:39:15 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

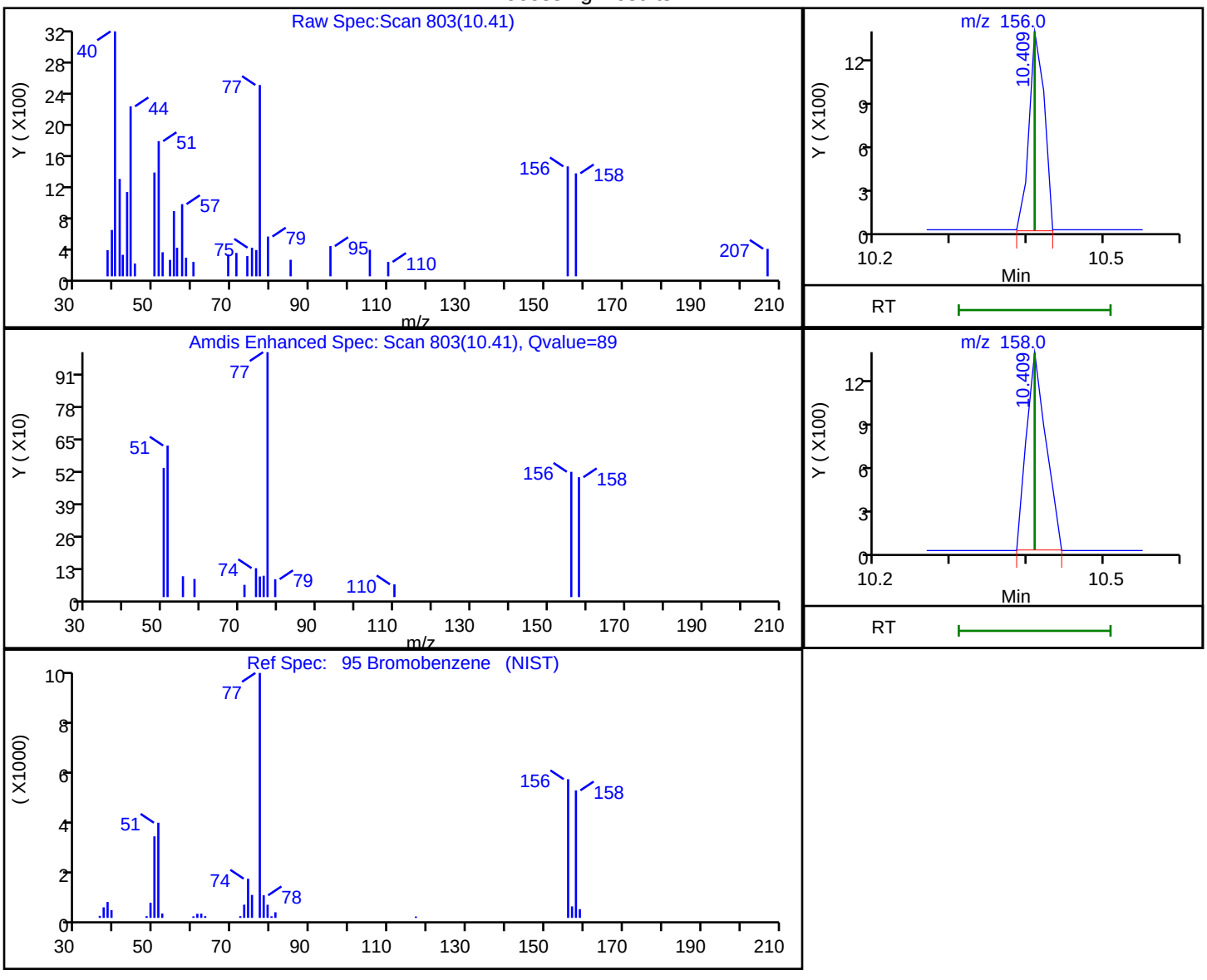
User Disabled Compound Report

Eurofins Cleveland

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 95 Bromobenzene, CAS: 108-86-1

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 10.41 | 156.00 | 1927 | 0.436833 |
| 10.41 | 158.00 | 2326 | |

Reviewer: HE9L, 10-Aug-2023 10:39:54 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

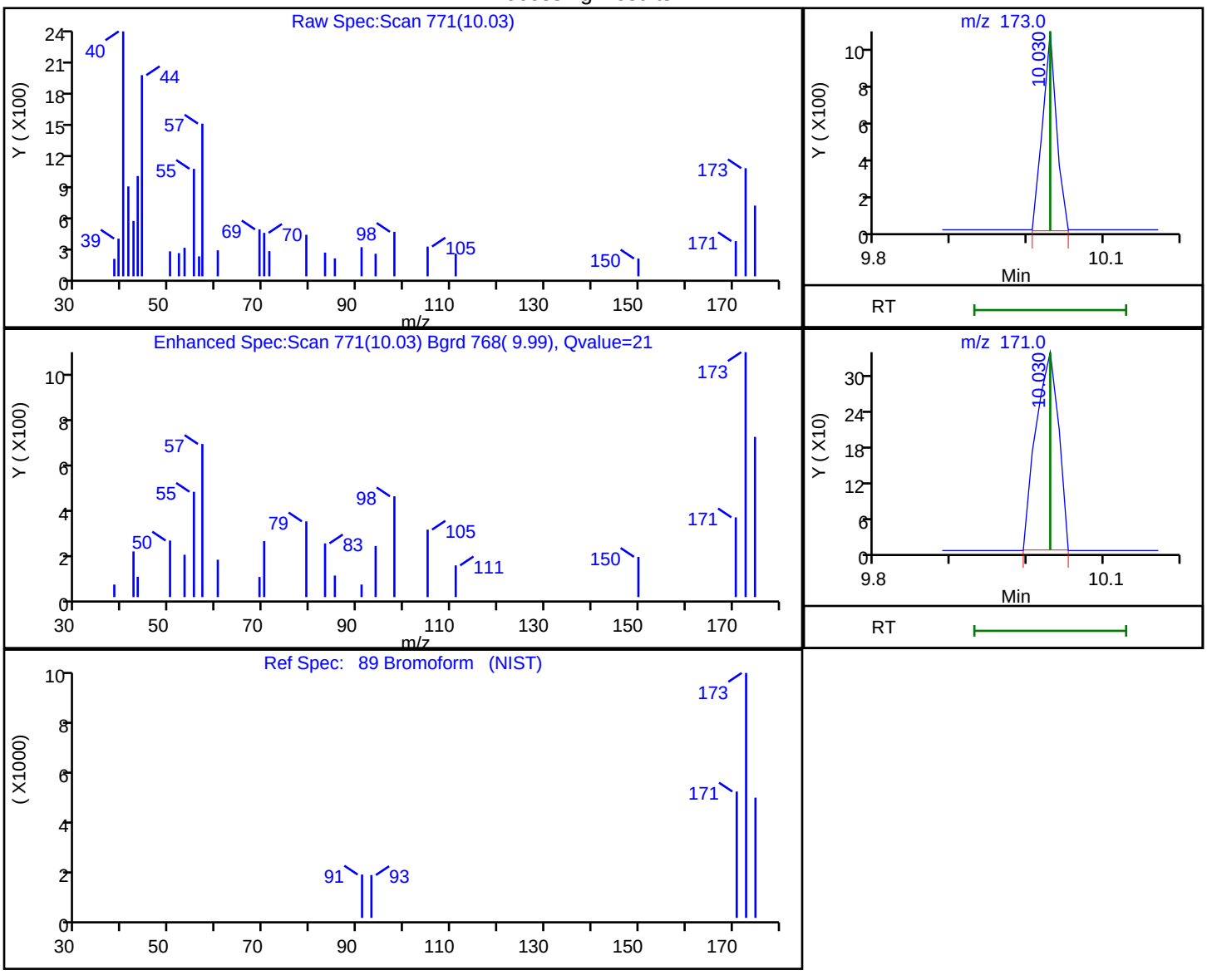
User Disabled Compound Report

Eurofins Cleveland

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 89 Bromoform, CAS: 75-25-2

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 10.03 | 173.00 | 1313 | 0.444145 |
| 10.03 | 171.00 | 695 | |

Reviewer: HE9L, 10-Aug-2023 10:39:47 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

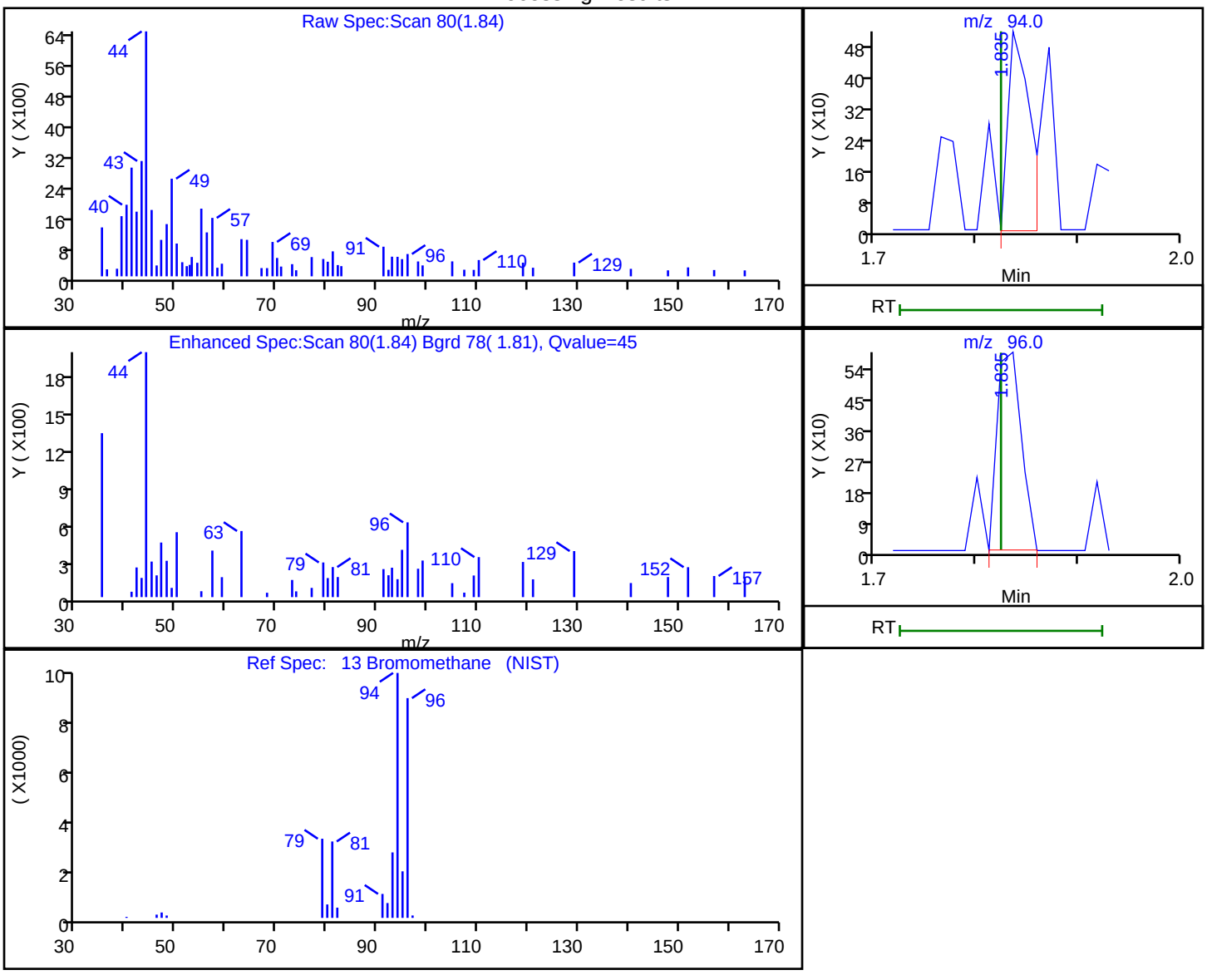
User Disabled Compound Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 13 Bromomethane, CAS: 74-83-9

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 1.84 | 94.00 | 779 | 0.820597 |
| 1.84 | 96.00 | 977 | |

Reviewer: HE9L, 10-Aug-2023 10:36:17 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

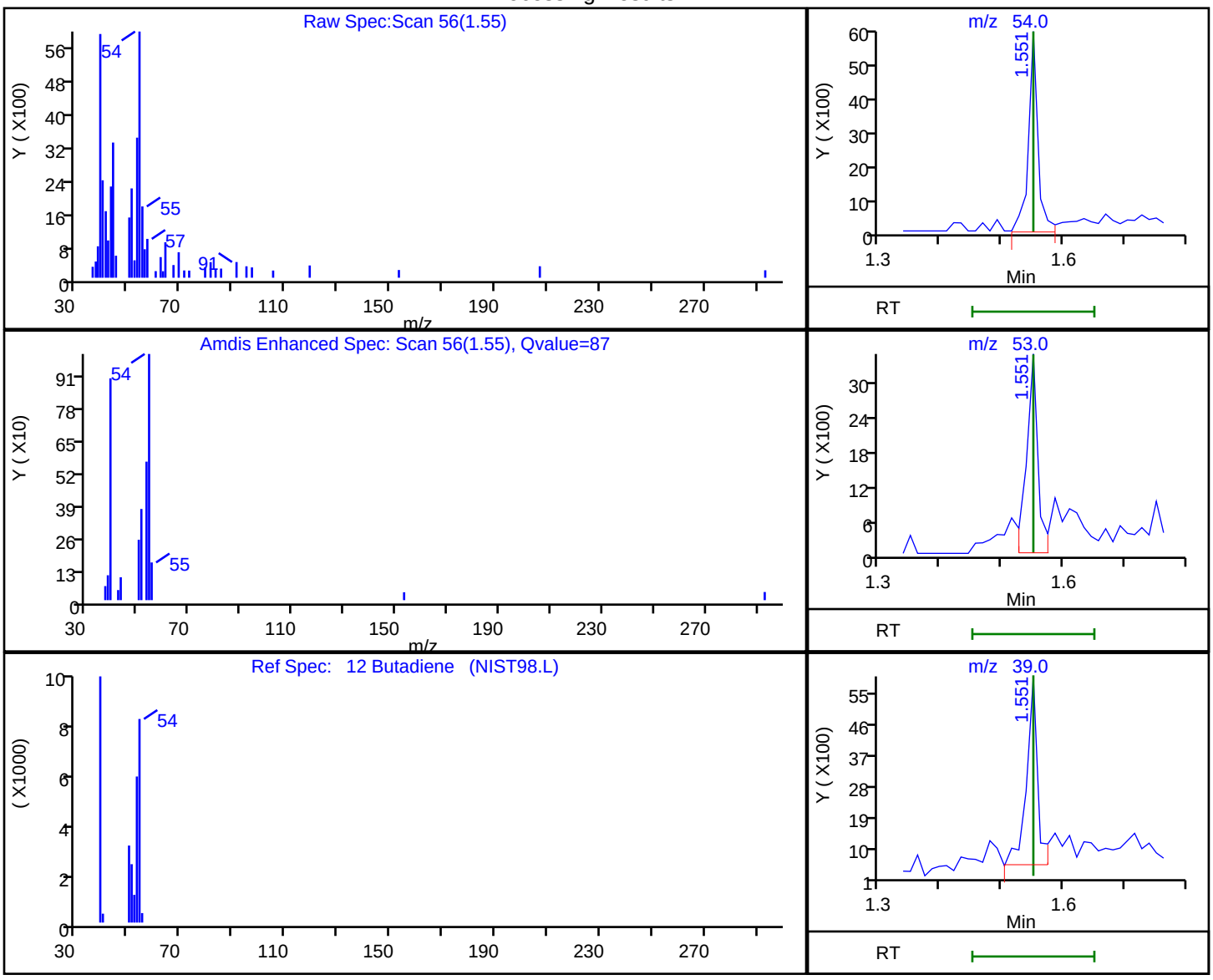
User Disabled Compound Report

Eurofins Cleveland

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 12 Butadiene, CAS: 106-99-0

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 1.55 | 54.00 | 6395 | 0.741012 |
| 1.55 | 53.00 | 4466 | |
| 1.55 | 39.00 | 7026 | |

Reviewer: HE9L, 10-Aug-2023 10:36:14 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

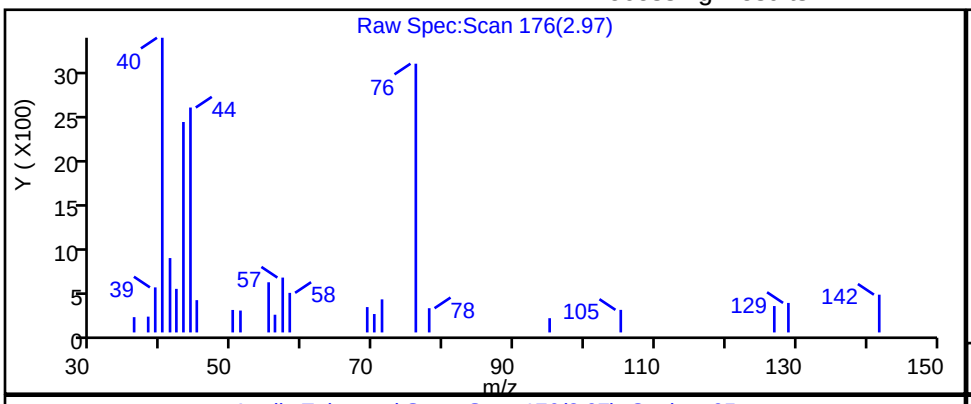
User Disabled Compound Report

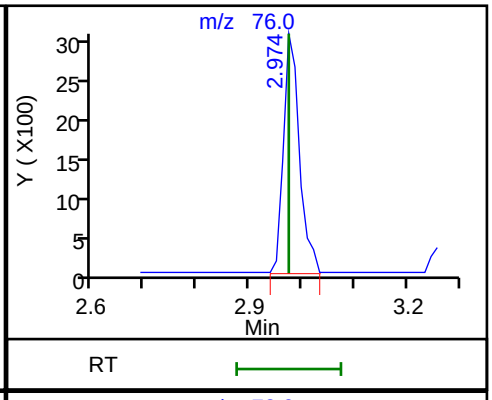
Eurofins Cleveland

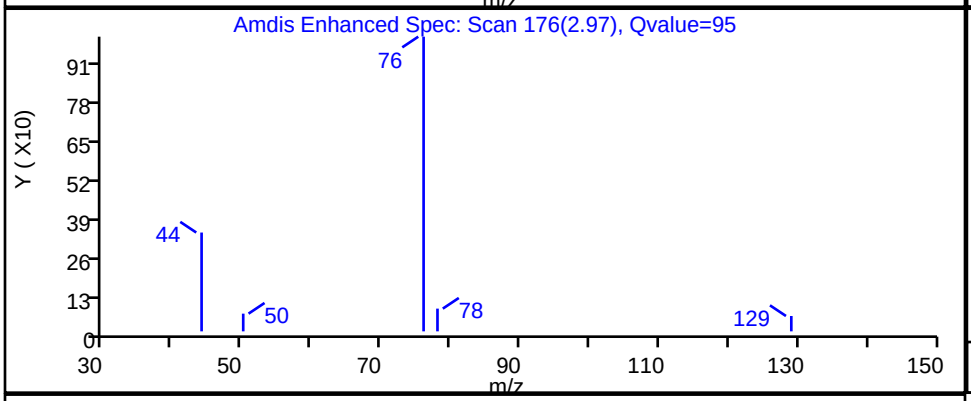
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

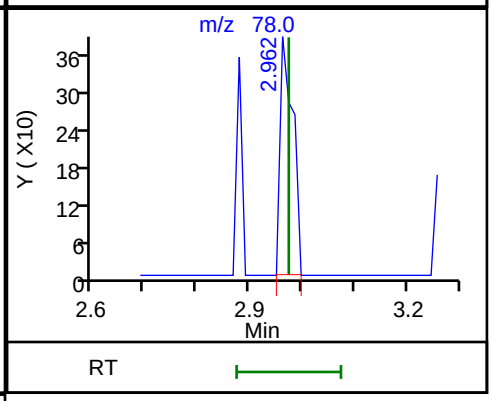
## 24 Carbon disulfide, CAS: 75-15-0

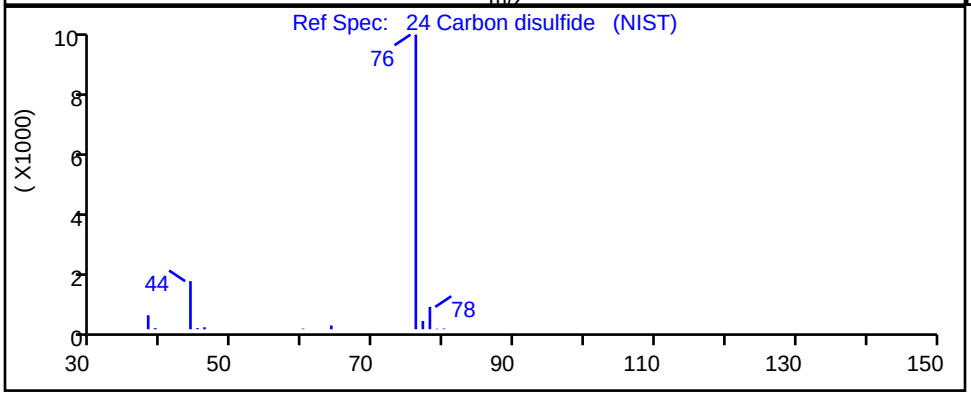
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 2.97 | 76.00 | 6544 | 0.750946 |
| 2.96 | 78.00 | 657 | |

Reviewer: HE9L, 10-Aug-2023 10:36:31 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

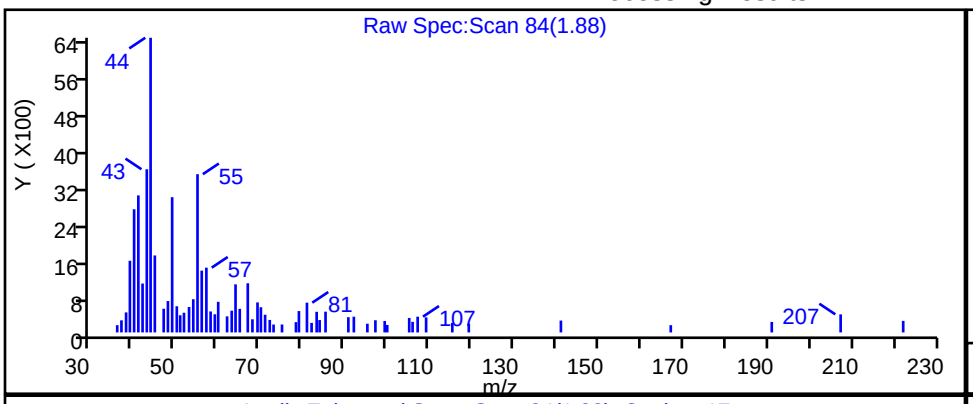
User Disabled Compound Report

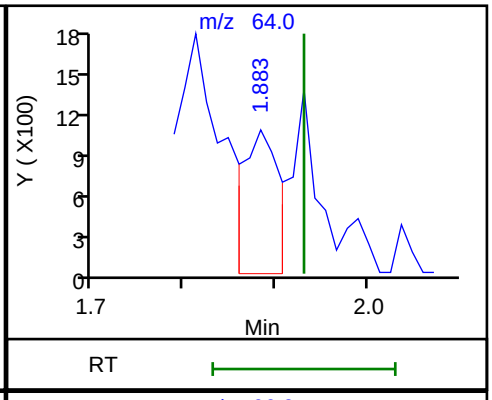
Eurofins Cleveland

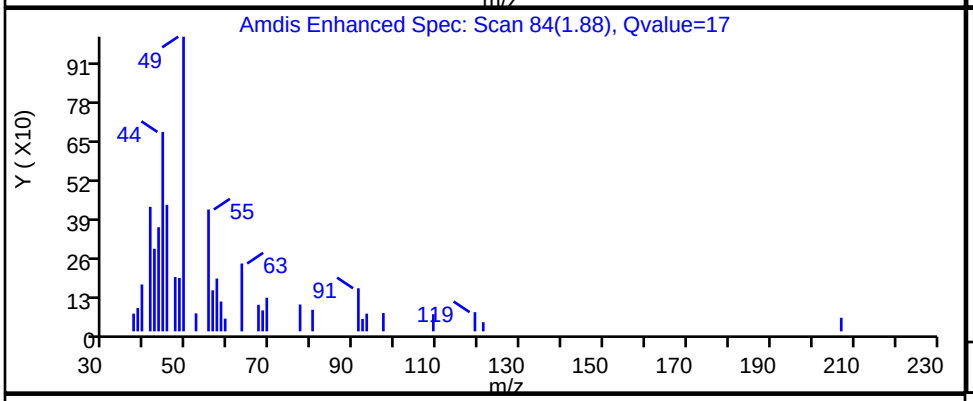
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

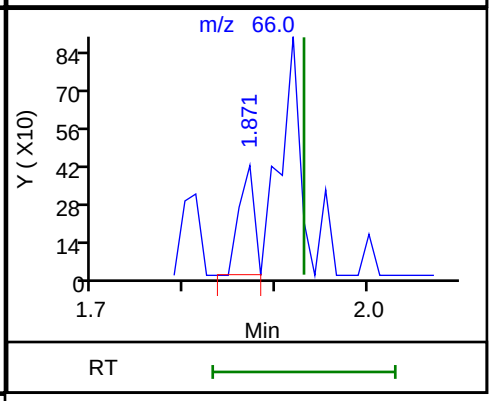
## 14 Chloroethane, CAS: 75-00-3

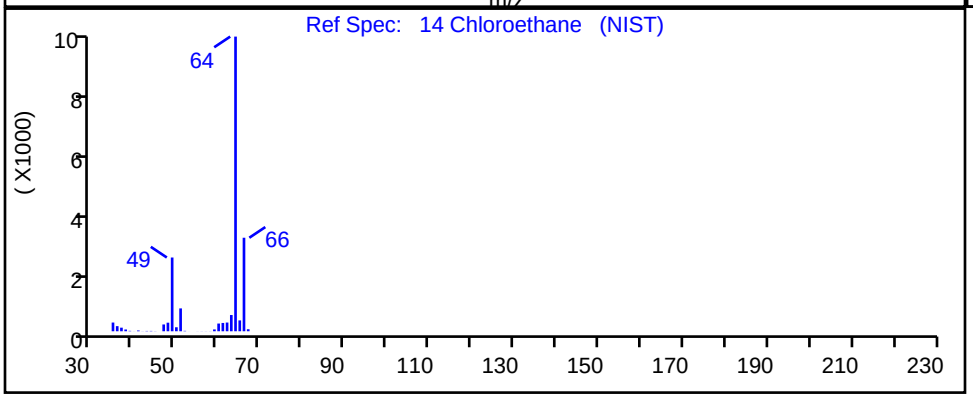
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 1.88 | 64.00 | 3031 | 0.905163 |
| 1.87 | 66.00 | 475 | |

Reviewer: HE9L, 10-Aug-2023 10:36:19 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

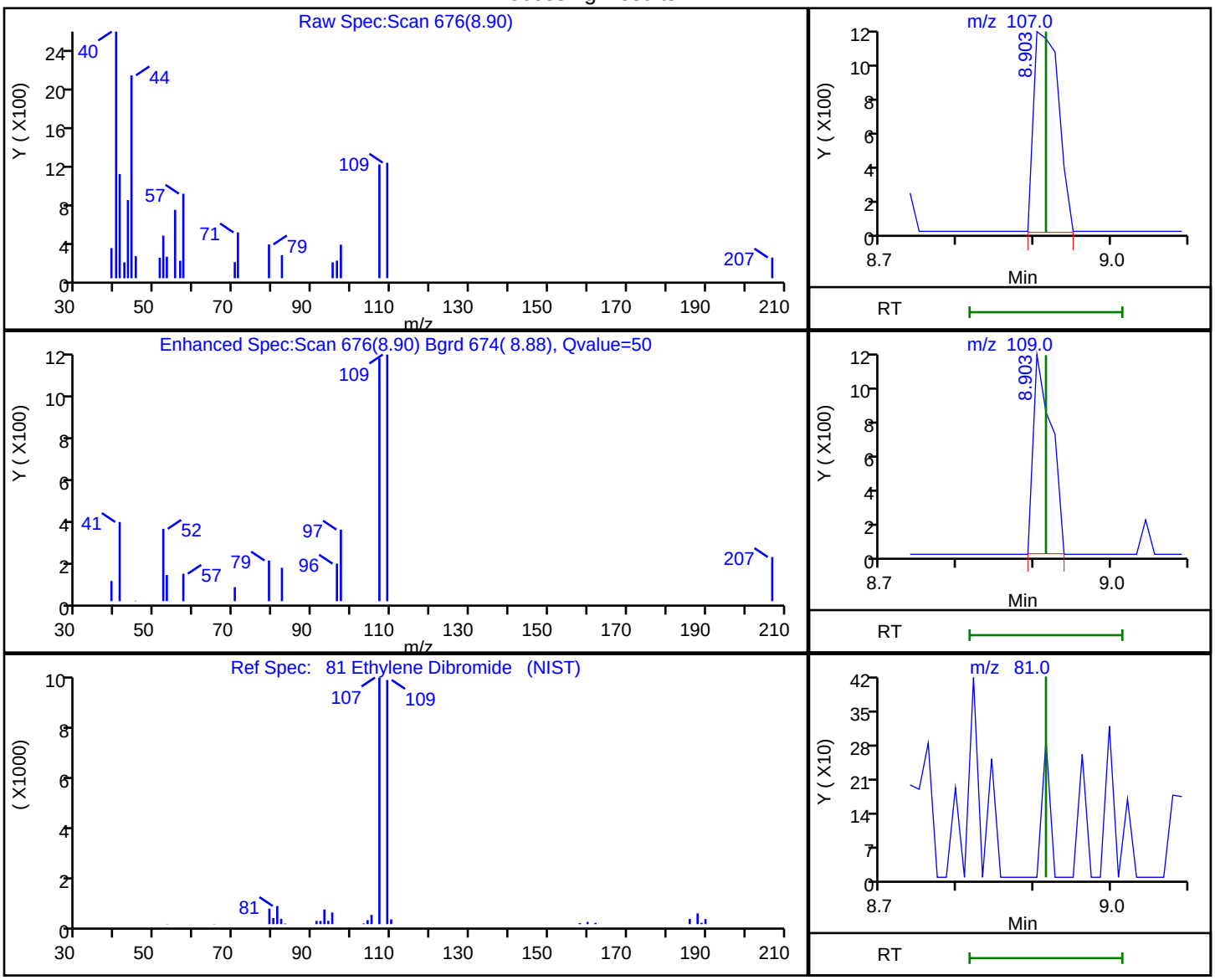
User Disabled Compound Report

Eurofins Cleveland

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 81 Ethylene Dibromide, CAS: 106-93-4

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 8.90 | 107.00 | 2666 | 0.748053 |
| 8.90 | 109.00 | 1967 | |
| 8.92 | 81.00 | 0 | |

Reviewer: HE9L, 10-Aug-2023 10:39:27 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

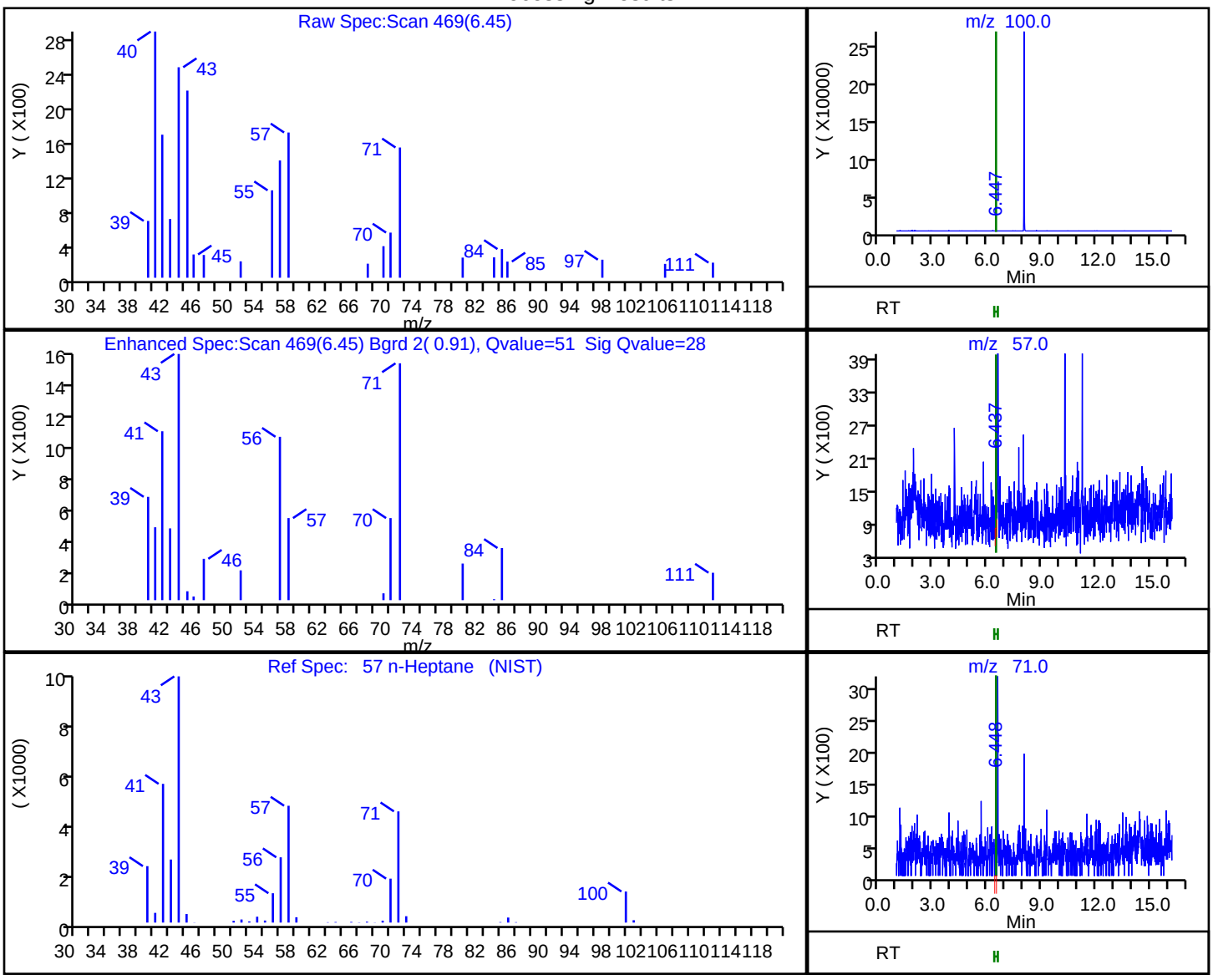
User Disabled Compound Report

Eurofins Cleveland

| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

## 57 n-Heptane, CAS: 142-82-5

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 6.45 | 100.00 | 0 | |
| 6.44 | 57.00 | 3260 | |
| 6.45 | 71.00 | 3115 | |

Reviewer: HE9L, 10-Aug-2023 10:37:39 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

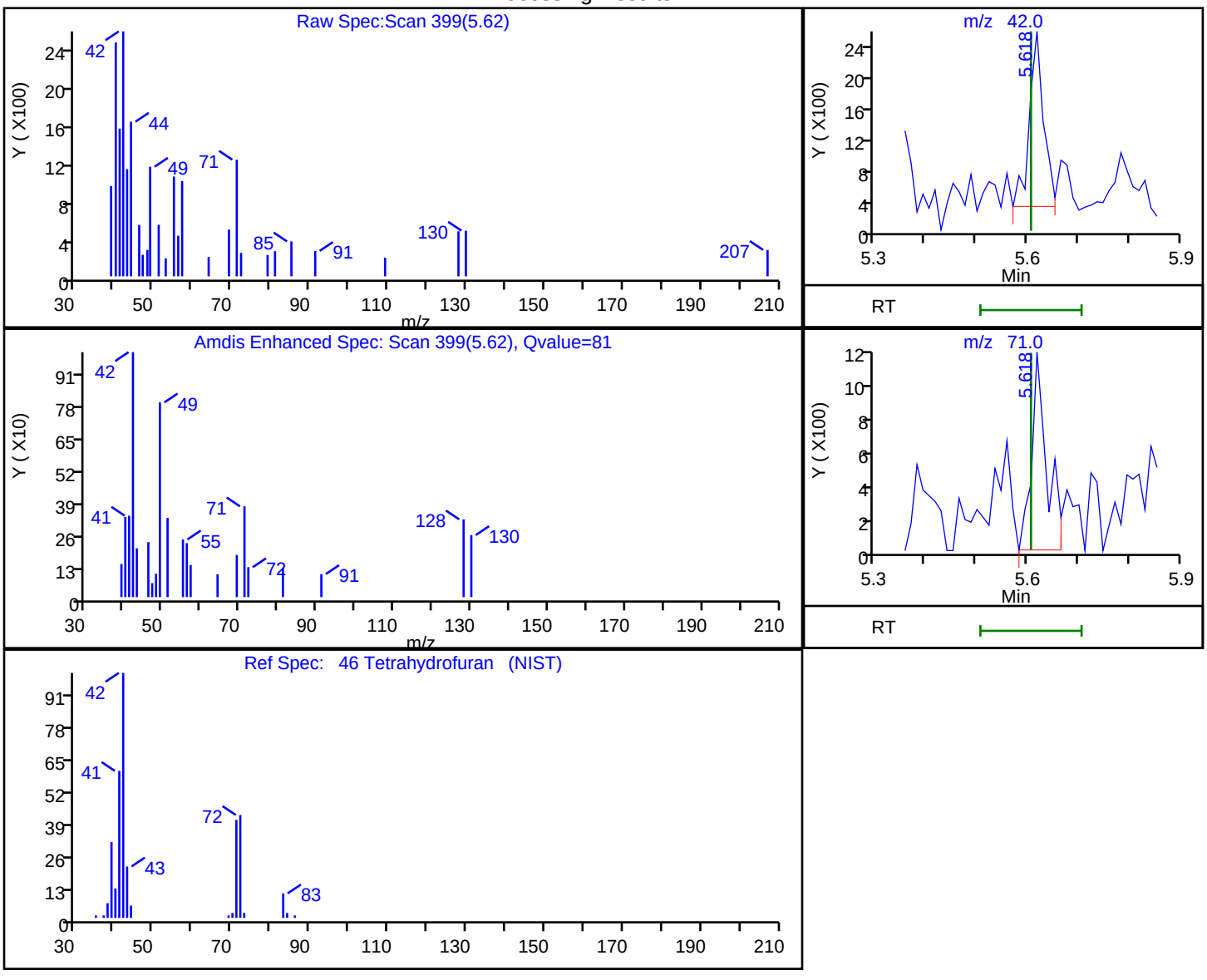
User Disabled Compound Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D
Injection Date: 09-Aug-2023 14:24:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 46 Tetrahydrofuran, CAS: 109-99-9

Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 5.62 | 42.00 | 4363 | 1.449229 |
| 5.62 | 71.00 | 2526 | |

Reviewer: HE9L, 10-Aug-2023 10:36:59 -04:00:00 (UTC)
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

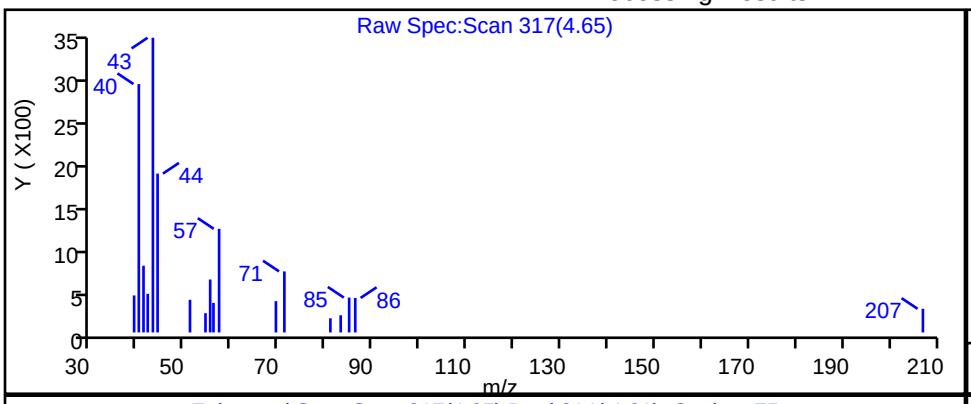
User Disabled Compound Report

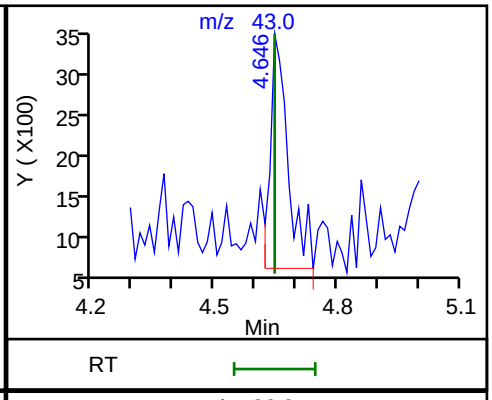
Eurofins Cleveland

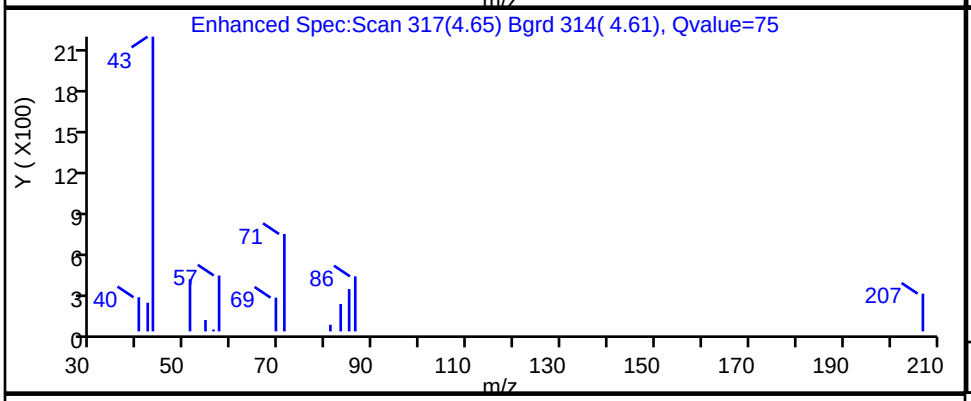
| | | | | | |
|---|---|---|---|---|---|
| Data File: | \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794280.D | | | | |
| Injection Date: | 09-Aug-2023 14:24:30 | Instrument ID: | A3UX17 | | |
| Lims ID: | ic | | | | |
| Client ID: | | | | | |
| Operator ID: | 402279 | ALS Bottle#: | 2 | Worklist Smp#: | 3 |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | | |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |
| Column: | DB-624 ( 0.18 mm) | Detector | MS SCAN | | |

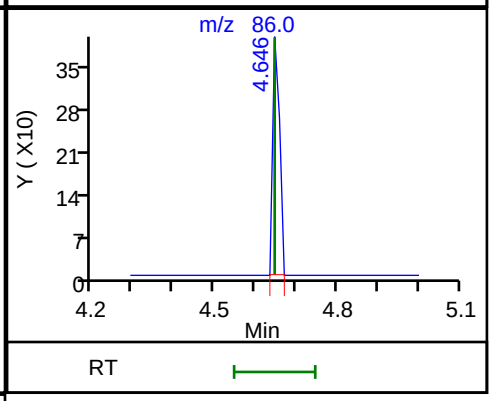
## 34 Vinyl acetate, CAS: 108-05-4

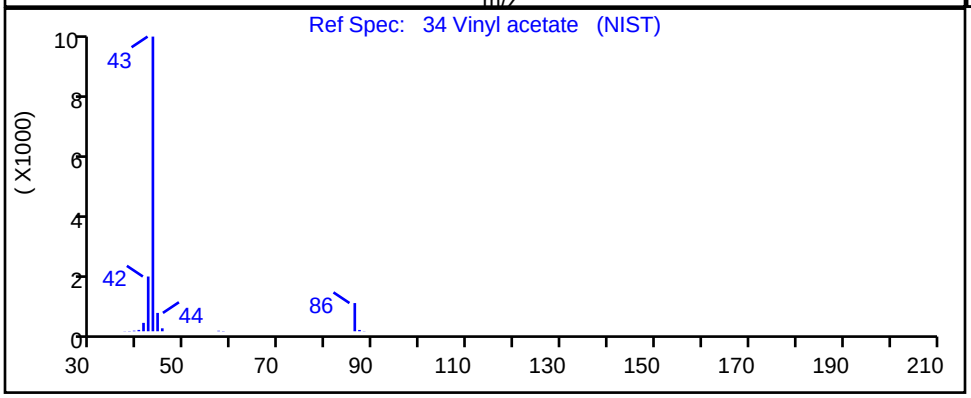
Processing Results




| RT | Mass | Response | Amount |
|---|---|---|---|
| 4.65 | 43.00 | 8697 | 0.721333 |
| 4.65 | 86.00 | 473 | |

Reviewer: HE9L, 10-Aug-2023 10:36:40 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794281.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 09-Aug-2023 14:47:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-004
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:13 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 08:41:09

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.555 | -0.012 | 97 | 528806 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 449811 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 240632 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.903 | -0.012 | 94 | 146596 | 25.0 | 25.6 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.270 | 6.271 | -0.001 | 91 | 203880 | 25.0 | 25.4 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 580005 | 25.0 | 24.9 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | -0.001 | 89 | 221711 | 25.0 | 24.5 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 95 | 5948 | 1.00 | 1.11 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 96 | 10151 | 1.00 | 1.05 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 91 | 7462 | 1.00 | 1.14 | |
| 12 Butadiene | 54 | 1.539 | 1.551 | -0.012 | 88 | 10867 | 1.00 | 1.24 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 73 | 1035 | 1.00 | 1.07 | |
| 14 Chloroethane | 64 | 1.930 | 1.930 | 0.000 | 60 | 3272 | 1.00 | 1.07 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 96 | 6761 | 1.00 | 1.08 | |
| 15 Dichlorofluoromethane | 67 | 2.167 | 2.179 | -0.012 | 73 | 8405 | 1.00 | 1.03 | |
| 17 Ethyl ether | 59 | 2.511 | 2.511 | 0.000 | 90 | 4586 | 1.00 | 0.9564 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 50 | 3032 | 1.00 | 0.8685 | |
| 18 Acrolein | 56 | 2.760 | 2.749 | 0.011 | 33 | 3204 | 5.00 | 6.34 | |
| 19 1,1-Dichloroethene | 96 | 2.760 | 2.749 | 0.011 | 88 | 3763 | 1.00 | 1.23 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 43 | 2968 | 1.00 | 1.11 | |
| 22 Acetone | 43 | 2.938 | 2.950 | -0.012 | 98 | 13100 | 2.00 | 2.11 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 99 | 10359 | 1.00 | 1.17 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 83 | 2448 | 1.00 | 1.16 | |
| 26 Methyl acetate | 43 | 3.341 | 3.341 | 0.000 | 100 | 17583 | 2.00 | 2.31 | |
| 28 Methylene Chloride | 84 | 3.496 | 3.496 | 0.000 | 90 | 6855 | 1.00 | 1.20 | |
| 29 2-Methyl-2-propanol | 59 | 3.721 | 3.733 | -0.012 | 94 | 9797 | 10.0 | 11.5 | |
| 31 Methyl tert-butyl ether | 73 | 3.804 | 3.804 | 0.000 | 78 | 10610 | 1.00 | 0.9894 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.816 | 0.000 | 89 | 4491 | 1.00 | 1.24 | |
| 30 Acrylonitrile | 53 | 4.017 | 4.017 | 0.000 | 96 | 40069 | 10.0 | 10.7 | |
| 33 Hexane | 86 | 4.136 | 4.136 | 0.000 | 89 | 764 | 1.00 | 0.99 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.551 | -0.012 | 96 | 10586 | 1.00 | 1.12 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 13383 | 1.00 | 1.09 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.274 | -0.012 | 74 | 6689 | 1.00 | 1.15 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.334 | 5.322 | 0.012 | 38 | 4660 | 1.00 | 1.13 | |
| 39 2-Butanone (MEK) | 43 | 5.393 | 5.405 | -0.012 | 93 | 10346 | 2.00 | 1.91 | |
| 46 Tetrahydrofuran | 42 | 5.618 | 5.606 | 0.012 | 81 | 7847 | 2.00 | 2.56 | |
| 45 Chlorobromomethane | 128 | 5.618 | 5.618 | 0.000 | 82 | 1916 | 1.00 | 0.8009 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 92 | 7785 | 1.00 | 1.22 | |
| 49 Cyclohexane | 56 | 5.772 | 5.784 | -0.012 | 92 | 11599 | 1.00 | 1.01 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 88 | 5884 | 1.00 | 1.07 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 87 | 5413 | 1.00 | 1.13 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 85 | 5072 | 1.00 | 1.00 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 90 | 16174 | 1.00 | 1.06 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 28 | 8779 | 25.0 | 29.9 | a |
| 54 1,2-Dichloroethane | 62 | 6.353 | 6.354 | -0.001 | 91 | 7077 | 1.00 | 1.03 | |
| 57 n-Heptane | 100 | 6.448 | 6.448 | 0.000 | 91 | 1252 | 1.00 | 1.37 | |
| 59 Trichloroethene | 130 | 6.899 | 6.887 | 0.012 | 83 | 3721 | 1.00 | 0.9562 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 80 | 5621 | 1.00 | 0.9403 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 92 | 6295 | 1.00 | 1.14 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 90 | 2937 | 1.00 | 1.05 | |
| 64 1,4-Dioxane | 88 | 7.302 | 7.279 | 0.024 | 35 | 1101 | 20.0 | 20.9 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 93 | 5803 | 1.00 | 1.12 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 87 | 7644 | 2.00 | 2.32 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.824 | 7.836 | -0.012 | 80 | 6436 | 1.00 | 1.00 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 94 | 22943 | 2.00 | 2.65 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 94 | 17665 | 1.00 | 1.05 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 90 | 5733 | 1.00 | 0.9306 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 86 | 6495 | 1.00 | 1.08 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 86 | 4493 | 1.00 | 1.23 | |
| 75 Tetrachloroethene | 164 | 8.524 | 8.512 | 0.012 | 90 | 3230 | 1.00 | 0.9315 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 96 | 7390 | 1.00 | 1.14 | |
| 77 2-Hexanone | 43 | 8.701 | 8.702 | -0.001 | 95 | 13367 | 2.00 | 2.16 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 85 | 4070 | 1.00 | 1.06 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 92 | 3311 | 1.00 | 0.9056 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 93 | 11948 | 1.00 | 1.07 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.377 | 0.000 | 98 | 6662 | 1.00 | 1.06 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 50 | 4103 | 1.00 | 1.08 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 93 | 6659 | 1.00 | 0.8862 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 94 | 6615 | 1.00 | 0.8977 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 91 | 13011 | 1.00 | 1.06 | |
| 89 Bromoform | 173 | 10.018 | 10.030 | -0.012 | 91 | 4018 | 1.00 | 1.32 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 94 | 19332 | 1.00 | 1.03 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 87 | 6856 | 1.00 | 1.47 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 92 | 5912 | 1.00 | 0.8747 | |
| 97 N-Propylbenzene | 120 | 10.468 | 10.468 | 0.000 | 99 | 5480 | 1.00 | 1.06 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 84 | 1339 | 1.00 | 0.8309 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 62 | 3872 | 1.00 | 1.20 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 96 | 4218 | 1.00 | 0.9822 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 93 | 16366 | 1.00 | 1.03 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 96 | 5220 | 1.00 | 1.16 | |
| 102 tert-Butylbenzene | 119 | 10.883 | 10.883 | 0.000 | 96 | 12328 | 1.00 | 1.01 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.943 | 0.000 | 96 | 16758 | 1.00 | 1.02 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 19377 | 1.00 | 1.03 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 94 | 14729 | 1.00 | 0.9796 | |
| 108 1,3-Dichlorobenzene | 146 | 11.192 | 11.192 | 0.000 | 71 | 7926 | 1.00 | 0.9686 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 91 | 7834 | 1.00 | 0.9153 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 97 | 13178 | 1.00 | 1.01 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 95 | 8594 | 1.00 | 1.05 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 14 | 1514 | 1.00 | 1.05 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 89 | 5056 | 1.00 | 1.11 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 23 | 2069 | 1.00 | 1.13 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 98 | 14828 | 1.00 | 0.9549 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 91 | 4156 | 1.00 | 0.9380 | |
| S 126 Total BTEX | 1 | | | | 0 | | 5.00 | 4.95 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 4.00 | 4.73 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 2.38 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 1.93 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 2.00 | 1.78 | |

## QC Flag Legend

Processing Flags

Review Flags

a - User Assigned ID

## Reagents:

| | | | | | |
|---|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 0.80 | Units: uL | | |
| VMAROLISTDW_00496 | Amount Added: | 0.80 | Units: uL | | |
| VMRPRIMW_00543 | Amount Added: | 0.80 | Units: uL | | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent | |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent | |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent | |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent | |

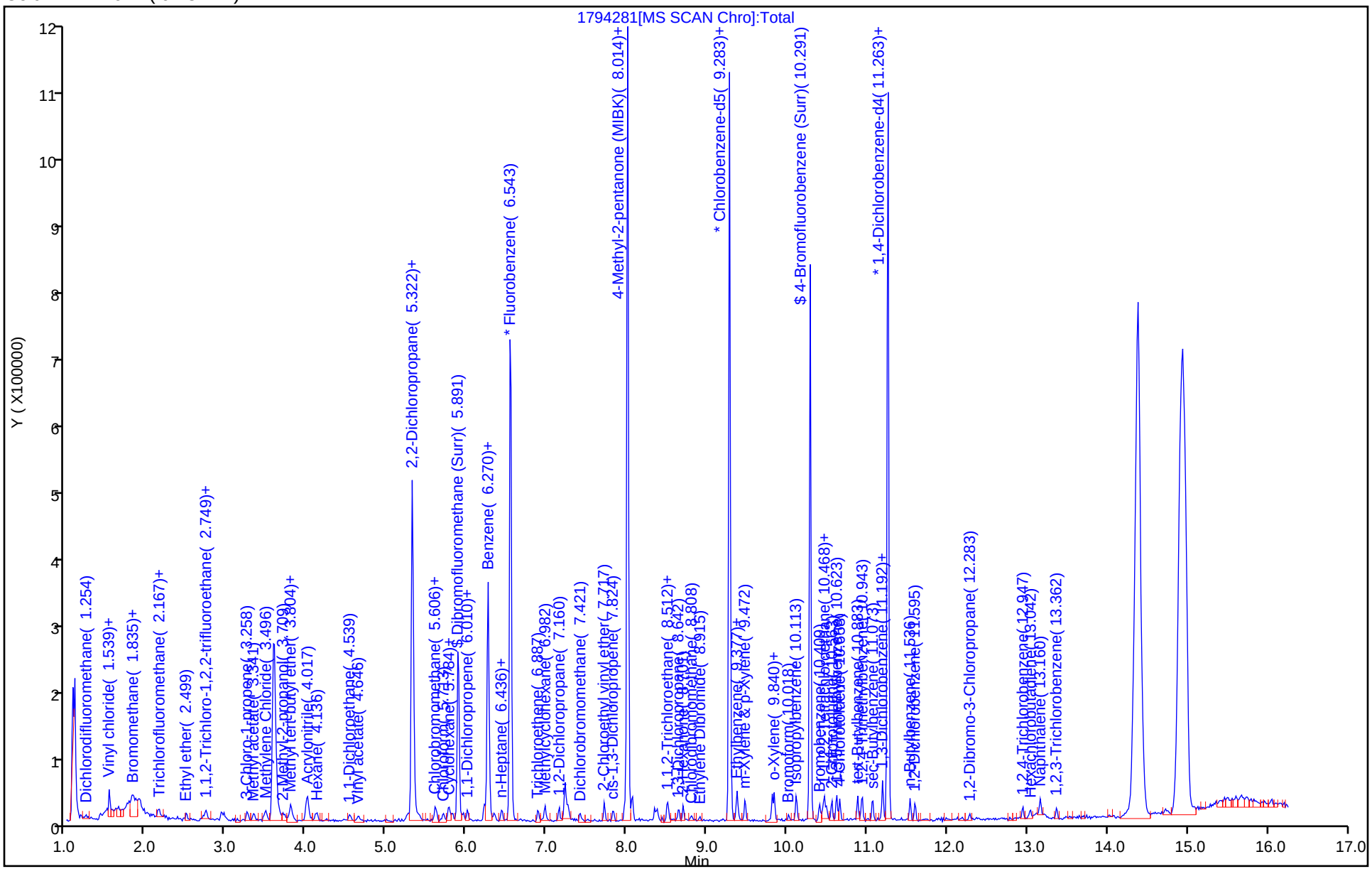
Report Date: 10-Aug-2023 14:52:14 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794281.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 14:47:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Manual Integration/User Assign Peak Report

Eurofins Cleveland

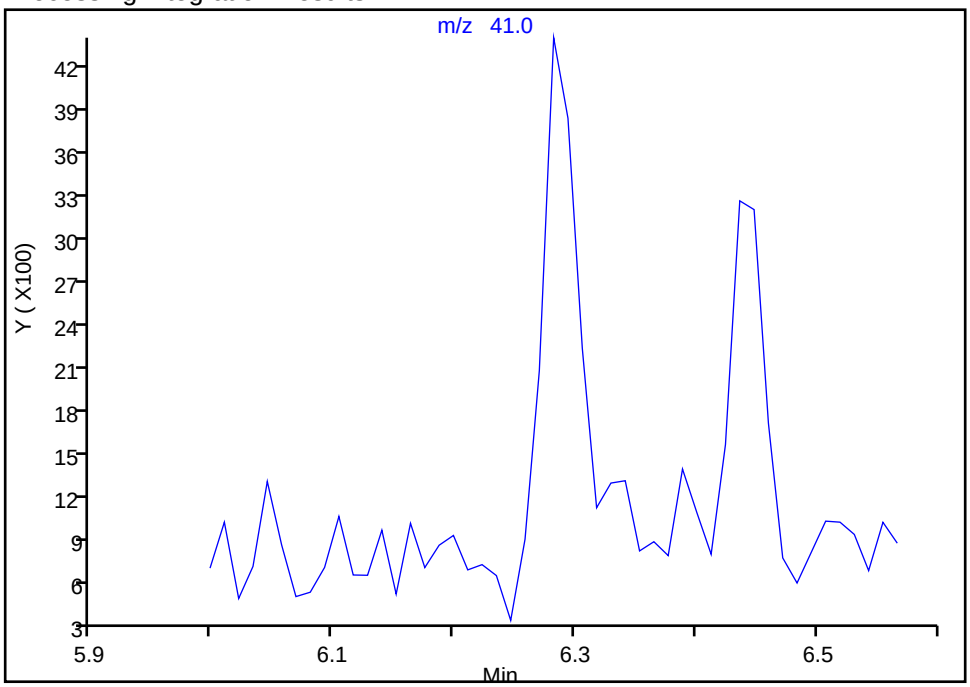
Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794281.D
Injection Date: 09-Aug-2023 14:47:30 Instrument ID: A3UX17
Lims ID: ic
Client ID:
Operator ID: 402279 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Column: DB-624 ( 0.18 mm) Detector MS SCAN

## 52 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

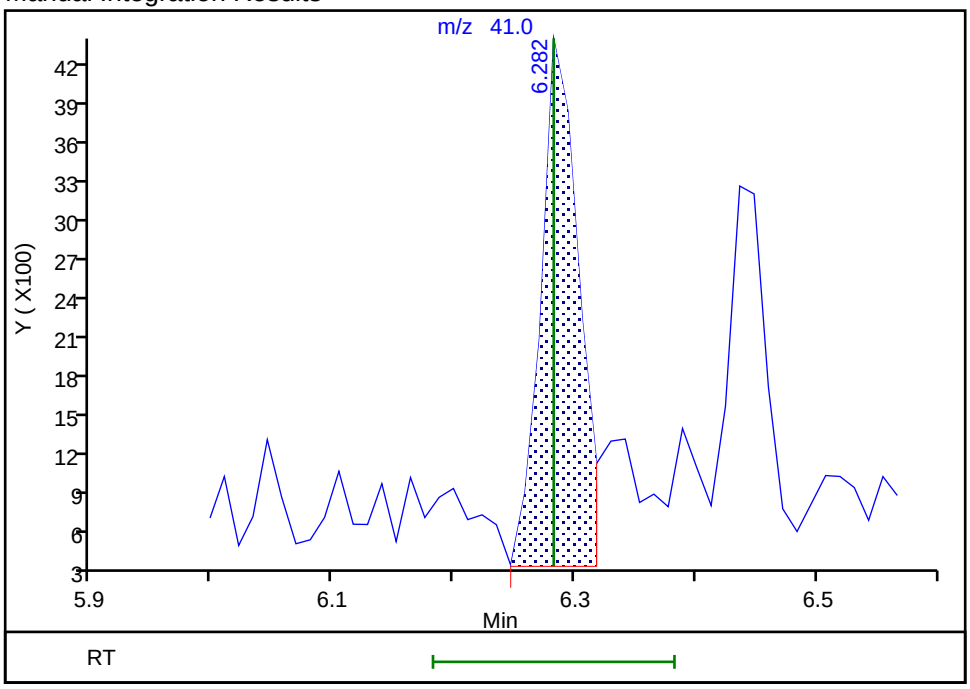
Not Detected
Expected RT: 6.28

Processing Integration Results




Manual Integration Results

RT: 6.28
Area: 8779
Amount: 29.946166
Amount Units: ug/l




Reviewer: HE9L, 10-Aug-2023 09:32:38 -04:00:00 (UTC)
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794282.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 09-Aug-2023 15:10:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-005
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:17 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 09:37:13

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 97 | 528011 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 91 | 447878 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 240237 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.903 | -0.012 | 94 | 146718 | 25.0 | 25.6 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 206980 | 25.0 | 25.8 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 570023 | 25.0 | 24.6 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 87 | 226215 | 25.0 | 25.1 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 96 | 14655 | 2.50 | 2.73 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 98 | 24332 | 2.50 | 2.51 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 97 | 15259 | 2.50 | 2.34 | |
| 12 Butadiene | 54 | 1.551 | 1.551 | 0.000 | 88 | 23605 | 2.50 | 2.69 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 86 | 2887 | 2.50 | 2.99 | |
| 14 Chloroethane | 64 | 1.930 | 1.930 | 0.000 | 90 | 9343 | 2.50 | 3.06 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 96 | 16218 | 2.50 | 2.60 | |
| 15 Dichlorofluoromethane | 67 | 2.168 | 2.179 | -0.011 | 95 | 22190 | 2.50 | 2.71 | |
| 17 Ethyl ether | 59 | 2.511 | 2.511 | 0.000 | 93 | 12548 | 2.50 | 2.62 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.737 | 2.725 | 0.012 | 55 | 6538 | 2.50 | 2.33 | |
| 18 Acrolein | 56 | 2.749 | 2.749 | 0.000 | 43 | 5661 | 12.5 | 13.0 | |
| 19 1,1-Dichloroethene | 96 | 2.761 | 2.749 | 0.011 | 90 | 7448 | 2.50 | 2.45 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 46 | 6002 | 2.50 | 2.24 | |
| 22 Acetone | 43 | 2.950 | 2.950 | 0.000 | 96 | 23776 | 5.00 | 6.28 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 100 | 22516 | 2.50 | 2.54 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 90 | 4416 | 2.50 | 2.09 | |
| 26 Methyl acetate | 43 | 3.342 | 3.341 | 0.001 | 99 | 36127 | 5.00 | 4.75 | |
| 28 Methylene Chloride | 84 | 3.496 | 3.496 | 0.000 | 89 | 12024 | 2.50 | 2.71 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 94 | 19949 | 25.0 | 23.4 | |
| 31 Methyl tert-butyl ether | 73 | 3.804 | 3.804 | 0.000 | 96 | 25745 | 2.50 | 2.40 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.816 | 0.000 | 86 | 9234 | 2.50 | 2.56 | |
| 30 Acrylonitrile | 53 | 4.018 | 4.017 | 0.001 | 99 | 92072 | 25.0 | 24.5 | |
| 33 Hexane | 86 | 4.136 | 4.136 | 0.000 | 90 | 1714 | 2.50 | 2.23 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.551 | -0.012 | 96 | 21676 | 2.50 | 2.30 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.658 | 4.646 | 0.012 | 96 | 31685 | 2.50 | 2.59 | |
| 42 2,2-Dichloropropane | 77 | 5.275 | 5.274 | 0.001 | 74 | 15632 | 2.50 | 2.70 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 39 | 9375 | 2.50 | 2.28 | |
| 39 2-Butanone (MEK) | 43 | 5.405 | 5.405 | 0.000 | 95 | 20668 | 5.00 | 4.38 | |
| 46 Tetrahydrofuran | 42 | 5.607 | 5.606 | 0.001 | 70 | 16685 | 5.00 | 5.46 | |
| 45 Chlorobromomethane | 128 | 5.618 | 5.618 | 0.000 | 84 | 4804 | 2.50 | 2.56 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 94 | 15368 | 2.50 | 2.41 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 87 | 32500 | 2.50 | 2.82 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 95 | 14374 | 2.50 | 2.61 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 92 | 10555 | 2.50 | 2.21 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 84 | 11406 | 2.50 | 2.25 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 95 | 38233 | 2.50 | 2.52 | |
| 52 Isobutyl alcohol | 41 | 6.294 | 6.282 | 0.012 | 93 | 15205 | 62.5 | 52.1 | |
| 54 1,2-Dichloroethane | 62 | 6.354 | 6.354 | 0.000 | 94 | 15933 | 2.50 | 2.33 | |
| 57 n-Heptane | 100 | 6.437 | 6.448 | -0.011 | 93 | 2460 | 2.50 | 2.69 | |
| 59 Trichloroethene | 130 | 6.899 | 6.887 | 0.012 | 91 | 9654 | 2.50 | 2.48 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 91 | 16461 | 2.50 | 2.76 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 89 | 13600 | 2.50 | 2.47 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 88 | 5545 | 2.50 | 2.39 | |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.001 | 37 | 2445 | 50.0 | 46.5 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 92 | 12927 | 2.50 | 2.50 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 83 | 15813 | 5.00 | 4.81 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 82 | 14551 | 2.50 | 2.27 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 93 | 44118 | 5.00 | 5.11 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 97 | 41073 | 2.50 | 2.45 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 96 | 14404 | 2.50 | 2.35 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 95 | 14537 | 2.50 | 2.42 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 87 | 9365 | 2.50 | 2.57 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 91 | 8422 | 2.50 | 2.44 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 96 | 16038 | 2.50 | 2.49 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 97 | 27166 | 5.00 | 4.40 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 92 | 8830 | 2.50 | 2.32 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 88 | 9748 | 2.50 | 2.68 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 90 | 28337 | 2.50 | 2.54 | |
| 85 Ethylbenzene | 106 | 9.378 | 9.377 | 0.001 | 97 | 14319 | 2.50 | 2.28 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 94 | 10010 | 2.50 | 2.65 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 97 | 17315 | 2.50 | 2.31 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 93 | 18253 | 2.50 | 2.49 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 93 | 29030 | 2.50 | 2.38 | |
| 89 Bromoform | 173 | 10.018 | 10.030 | -0.012 | 95 | 6320 | 2.50 | 2.09 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 44204 | 2.50 | 2.37 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 87 | 9769 | 2.50 | 2.10 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 92 | 13581 | 2.50 | 2.39 | |
| 97 N-Propylbenzene | 120 | 10.469 | 10.468 | 0.001 | 98 | 10615 | 2.50 | 2.06 | |
| 96 1,2,3-Trichloropropane | 110 | 10.480 | 10.492 | -0.012 | 90 | 4292 | 2.50 | 2.67 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 77 | 7558 | 2.50 | 2.34 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 96 | 10847 | 2.50 | 2.53 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 35990 | 2.50 | 2.27 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 96 | 11209 | 2.50 | 2.50 | |
| 102 tert-Butylbenzene | 119 | 10.884 | 10.883 | 0.001 | 94 | 29240 | 2.50 | 2.39 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.943 | 0.000 | 96 | 38359 | 2.50 | 2.34 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 93 | 45394 | 2.50 | 2.42 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 93 | 32360 | 2.50 | 2.16 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 97 | 17552 | 2.50 | 2.15 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 95 | 20798 | 2.50 | 2.43 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 96 | 28784 | 2.50 | 2.21 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 93 | 18059 | 2.50 | 2.21 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 68 | 3117 | 2.50 | 2.16 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 96 | 9032 | 2.50 | 1.99 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 85 | 5026 | 2.50 | 2.75 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 98 | 33764 | 2.50 | 2.18 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 90 | 9012 | 2.50 | 2.04 | |
| S 126 Total BTEX | 1 | | | | 0 | | 12.5 | 12.1 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 10.0 | 9.33 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 4.84 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 4.62 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 5.00 | 4.80 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 2.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 2.00 | Units: uL | |
| VMRPRIMW_00543 | Amount Added: | 2.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

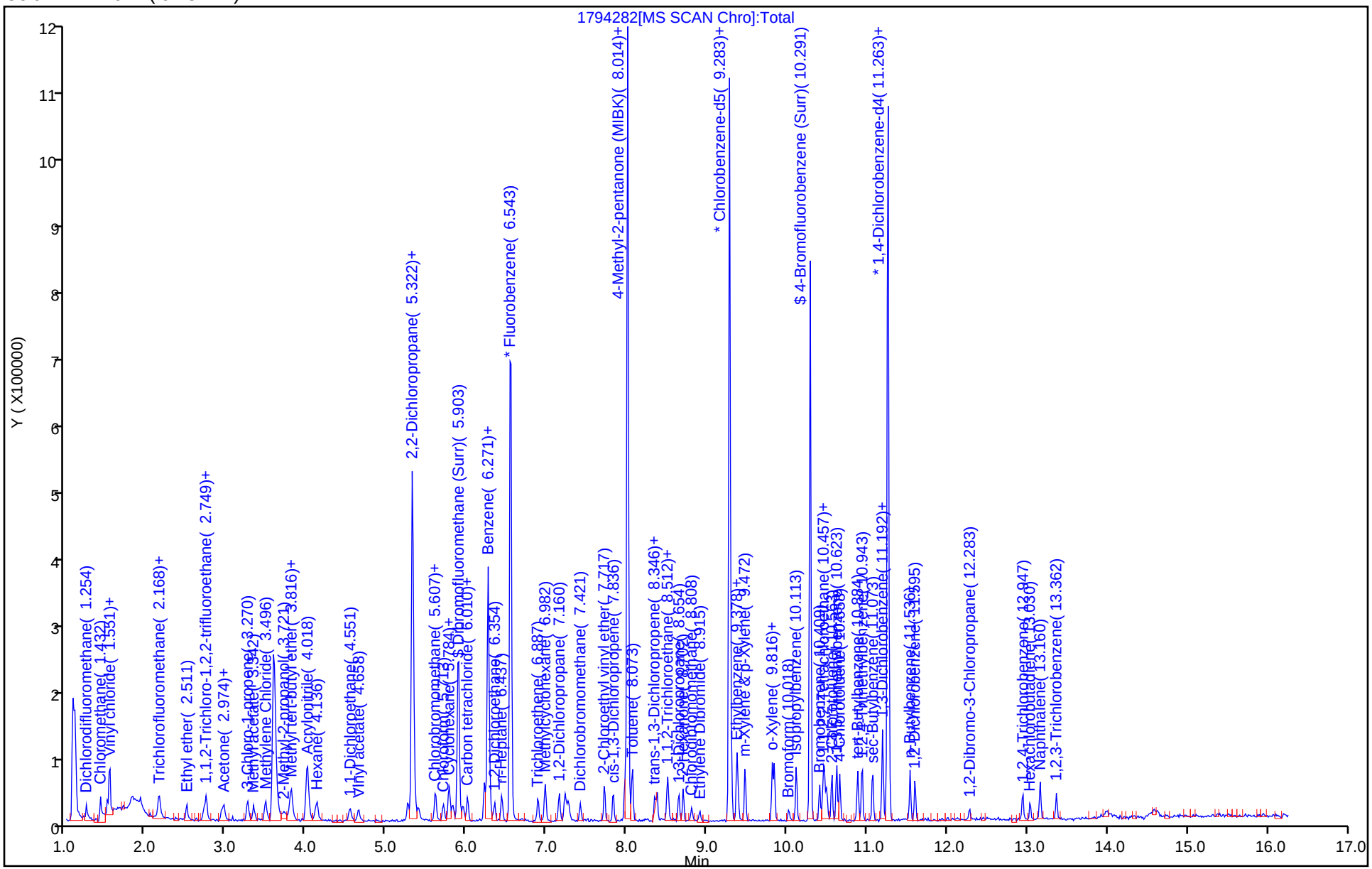
Report Date: 10-Aug-2023 14:52:17 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794282.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 15:10:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 5 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 4 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794283.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 09-Aug-2023 15:33:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-006
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:19 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 09:39:23

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 97 | 536656 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 92 | 434398 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 232768 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.903 | 0.000 | 93 | 147273 | 25.0 | 25.3 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.270 | 6.271 | -0.001 | 92 | 207811 | 25.0 | 25.5 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 579812 | 25.0 | 25.8 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | -0.001 | 88 | 222069 | 25.0 | 25.4 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 96 | 37419 | 6.25 | 6.86 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 99 | 58833 | 6.25 | 5.98 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 98 | 39283 | 6.25 | 5.94 | |
| 12 Butadiene | 54 | 1.551 | 1.551 | 0.000 | 90 | 55059 | 6.25 | 6.18 | |
| 13 Bromomethane | 94 | 1.835 | 1.824 | 0.011 | 92 | 5323 | 6.25 | 5.43 | |
| 14 Chloroethane | 64 | 1.942 | 1.930 | 0.012 | 95 | 23825 | 6.25 | 7.67 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 98 | 39400 | 6.25 | 6.22 | |
| 15 Dichlorofluoromethane | 67 | 2.179 | 2.179 | 0.000 | 98 | 50302 | 6.25 | 6.05 | |
| 17 Ethyl ether | 59 | 2.511 | 2.511 | 0.000 | 96 | 28903 | 6.25 | 5.94 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 93 | 16985 | 6.25 | 6.58 | |
| 18 Acrolein | 56 | 2.749 | 2.749 | -0.001 | 41 | 11910 | 31.3 | 29.5 | |
| 19 1,1-Dichloroethene | 96 | 2.760 | 2.749 | 0.011 | 88 | 18428 | 6.25 | 5.96 | |
| 23 Iodomethane | 142 | 2.962 | 2.950 | 0.012 | 56 | 15140 | 6.25 | 5.57 | |
| 22 Acetone | 43 | 2.950 | 2.950 | 0.000 | 97 | 37898 | 12.5 | 11.6 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 98 | 58036 | 6.25 | 6.45 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 90 | 13786 | 6.25 | 6.42 | |
| 26 Methyl acetate | 43 | 3.341 | 3.341 | 0.000 | 99 | 92609 | 12.5 | 12.0 | |
| 28 Methylene Chloride | 84 | 3.496 | 3.496 | 0.000 | 87 | 24216 | 6.25 | 6.16 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 98 | 49355 | 62.5 | 57.1 | |
| 31 Methyl tert-butyl ether | 73 | 3.804 | 3.804 | 0.000 | 96 | 69482 | 6.25 | 6.38 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.816 | 0.000 | 88 | 21245 | 6.25 | 5.80 | |
| 30 Acrylonitrile | 53 | 4.017 | 4.017 | 0.000 | 98 | 231379 | 62.5 | 60.7 | |
| 33 Hexane | 86 | 4.148 | 4.136 | 0.012 | 93 | 5408 | 6.25 | 6.91 | |
| 35 1,1-Dichloroethane | 63 | 4.551 | 4.551 | 0.000 | 95 | 61039 | 6.25 | 6.36 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 73935 | 6.25 | 5.94 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.274 | -0.012 | 87 | 37787 | 6.25 | 6.42 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.334 | 5.322 | 0.012 | 46 | 25789 | 6.25 | 6.18 | |
| 39 2-Butanone (MEK) | 43 | 5.405 | 5.405 | 0.000 | 95 | 56095 | 12.5 | 12.6 | |
| 46 Tetrahydrofuran | 42 | 5.618 | 5.606 | 0.012 | 82 | 38967 | 12.5 | 12.5 | |
| 45 Chlorobromomethane | 128 | 5.618 | 5.618 | 0.000 | 84 | 11893 | 6.25 | 6.75 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 95 | 38695 | 6.25 | 5.98 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 93 | 76590 | 6.25 | 6.54 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 92 | 33818 | 6.25 | 6.05 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 96 | 29502 | 6.25 | 6.08 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 88 | 34687 | 6.25 | 6.74 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 93 | 95132 | 6.25 | 6.16 | |
| 52 Isobutyl alcohol | 41 | 6.294 | 6.282 | 0.012 | 94 | 40117 | 156.3 | 141.7 | |
| 54 1,2-Dichloroethane | 62 | 6.353 | 6.354 | -0.001 | 95 | 42344 | 6.25 | 6.10 | |
| 57 n-Heptane | 100 | 6.448 | 6.448 | 0.000 | 97 | 6016 | 6.25 | 6.48 | |
| 59 Trichloroethene | 130 | 6.899 | 6.887 | 0.012 | 91 | 25425 | 6.25 | 6.44 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 88 | 36867 | 6.25 | 6.08 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 93 | 33818 | 6.25 | 6.05 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 90 | 13705 | 6.25 | 6.45 | |
| 64 1,4-Dioxane | 88 | 7.278 | 7.279 | 0.000 | 43 | 6617 | 125.0 | 123.8 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 94 | 29683 | 6.25 | 5.65 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 89 | 40241 | 12.5 | 12.0 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 86 | 40025 | 6.25 | 6.15 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 97 | 104612 | 12.5 | 11.9 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 95 | 100779 | 6.25 | 6.21 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 96 | 37080 | 6.25 | 6.23 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 93 | 33375 | 6.25 | 5.74 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 90 | 19625 | 6.25 | 5.56 | |
| 75 Tetrachloroethene | 164 | 8.524 | 8.512 | 0.012 | 92 | 20246 | 6.25 | 6.05 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 92 | 37468 | 6.25 | 6.00 | |
| 77 2-Hexanone | 43 | 8.701 | 8.702 | -0.001 | 98 | 72223 | 12.5 | 12.1 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 90 | 21195 | 6.25 | 5.74 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 93 | 24437 | 6.25 | 6.92 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 93 | 70416 | 6.25 | 6.51 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.377 | 0.000 | 97 | 38486 | 6.25 | 6.31 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 94 | 22317 | 6.25 | 6.08 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 95 | 48228 | 6.25 | 6.65 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 96 | 43479 | 6.25 | 6.11 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 94 | 72141 | 6.25 | 6.10 | |
| 89 Bromoform | 173 | 10.030 | 10.030 | 0.000 | 94 | 19082 | 6.25 | 6.52 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 97 | 109838 | 6.25 | 6.08 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 92 | 28893 | 6.25 | 6.41 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 94 | 30316 | 6.25 | 5.90 | |
| 97 N-Propylbenzene | 120 | 10.468 | 10.468 | 0.000 | 98 | 31795 | 6.25 | 6.38 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 92 | 9351 | 6.25 | 6.00 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 81 | 16669 | 6.25 | 5.32 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 96 | 27203 | 6.25 | 6.55 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 94408 | 6.25 | 6.14 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 98 | 25881 | 6.25 | 5.96 | |
| 102 tert-Butylbenzene | 119 | 10.883 | 10.883 | 0.000 | 94 | 77530 | 6.25 | 6.55 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.943 | 0.000 | 98 | 98805 | 6.25 | 6.21 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 109427 | 6.25 | 6.03 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 94918 | 6.25 | 6.53 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 94 | 49217 | 6.25 | 6.22 | |
| 109 1,4-Dichlorobenzene | 146 | 11.275 | 11.287 | -0.012 | 94 | 51527 | 6.25 | 6.22 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 98 | 77039 | 6.25 | 6.10 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 95 | 50617 | 6.25 | 6.39 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 83 | 8836 | 6.25 | 6.33 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 90 | 30644 | 6.25 | 6.97 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 93 | 10700 | 6.25 | 6.03 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 99 | 95267 | 6.25 | 6.34 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 94 | 25288 | 6.25 | 5.90 | |
| S 126 Total BTEX | 1 | | | | 0 | | 31.3 | 31.4 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 25.0 | 23.9 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 12.0 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 12.4 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 12.5 | 12.8 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 5.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 5.00 | Units: uL | |
| VMRPRIMW_00543 | Amount Added: | 5.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

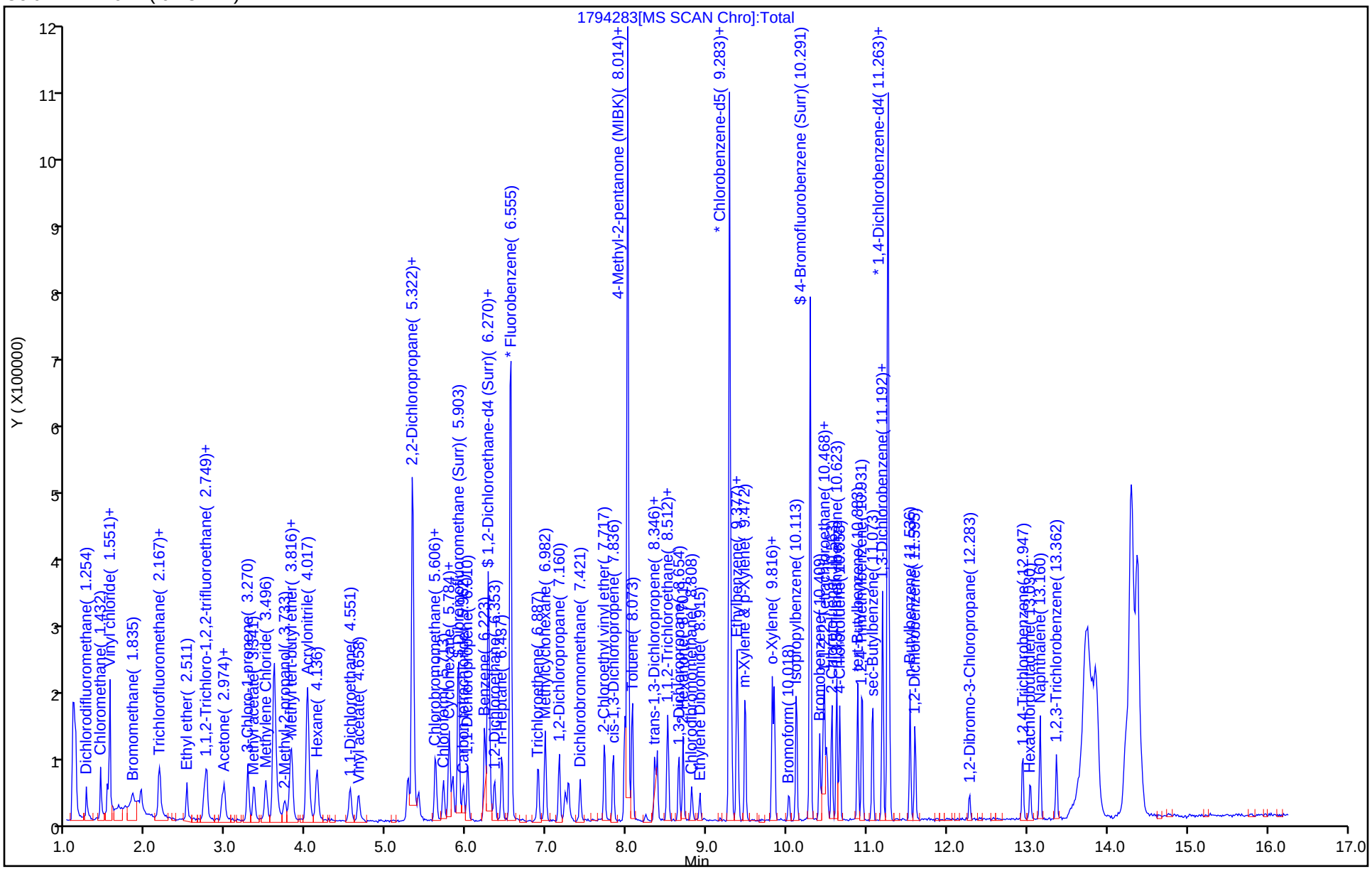
Report Date: 10-Aug-2023 14:52:20 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794283.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 15:33:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 6 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 5 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794284.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 09-Aug-2023 15:57:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-007
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:22 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 09:41:30

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 98 | 533582 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 89 | 445707 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 236916 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.903 | 0.000 | 93 | 146601 | 25.0 | 25.4 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 204249 | 25.0 | 25.2 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 576660 | 25.0 | 25.0 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 89 | 226578 | 25.0 | 25.3 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 97 | 65691 | 12.5 | 12.1 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 98 | 118305 | 12.5 | 12.1 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 97 | 80581 | 12.5 | 12.2 | |
| 12 Butadiene | 54 | 1.551 | 1.551 | 0.000 | 90 | 109347 | 12.5 | 12.3 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 94 | 10949 | 12.5 | 11.2 | |
| 14 Chloroethane | 64 | 1.930 | 1.930 | 0.000 | 93 | 40710 | 12.5 | 13.2 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 96 | 80083 | 12.5 | 12.7 | |
| 15 Dichlorofluoromethane | 67 | 2.179 | 2.179 | 0.000 | 97 | 99811 | 12.5 | 12.1 | |
| 17 Ethyl ether | 59 | 2.511 | 2.511 | 0.000 | 92 | 56418 | 12.5 | 11.7 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 95 | 29877 | 12.5 | 11.9 | |
| 18 Acrolein | 56 | 2.737 | 2.749 | -0.012 | 61 | 24089 | 62.5 | 62.5 | |
| 19 1,1-Dichloroethene | 96 | 2.760 | 2.749 | 0.011 | 88 | 35224 | 12.5 | 11.5 | |
| 23 Iodomethane | 142 | 2.962 | 2.950 | 0.012 | 57 | 30828 | 12.5 | 11.4 | |
| 22 Acetone | 43 | 2.938 | 2.950 | -0.012 | 99 | 71490 | 25.0 | 24.6 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 99 | 104143 | 12.5 | 11.6 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 89 | 28510 | 12.5 | 13.4 | |
| 26 Methyl acetate | 43 | 3.341 | 3.341 | 0.000 | 99 | 186161 | 25.0 | 24.2 | |
| 28 Methylene Chloride | 84 | 3.496 | 3.496 | 0.000 | 88 | 47454 | 12.5 | 12.9 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 98 | 97849 | 125.0 | 113.8 | |
| 31 Methyl tert-butyl ether | 73 | 3.804 | 3.804 | 0.000 | 96 | 136657 | 12.5 | 12.6 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.816 | 0.000 | 87 | 39937 | 12.5 | 11.0 | |
| 30 Acrylonitrile | 53 | 4.017 | 4.017 | 0.000 | 99 | 464551 | 125.0 | 122.6 | |
| 33 Hexane | 86 | 4.136 | 4.136 | 0.000 | 94 | 10192 | 12.5 | 13.1 | |
| 35 1,1-Dichloroethane | 63 | 4.551 | 4.551 | 0.000 | 96 | 118784 | 12.5 | 12.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 144766 | 12.5 | 11.7 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.274 | -0.011 | 88 | 68962 | 12.5 | 11.8 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 45 | 49319 | 12.5 | 11.9 | |
| 39 2-Butanone (MEK) | 43 | 5.393 | 5.405 | -0.012 | 96 | 107184 | 25.0 | 24.7 | |
| 46 Tetrahydrofuran | 42 | 5.606 | 5.606 | 0.000 | 87 | 73040 | 25.0 | 23.6 | |
| 45 Chlorobromomethane | 128 | 5.606 | 5.618 | -0.012 | 84 | 22243 | 12.5 | 13.0 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 95 | 76818 | 12.5 | 11.9 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 89 | 141694 | 12.5 | 12.2 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 93 | 65579 | 12.5 | 11.8 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 96 | 58295 | 12.5 | 12.1 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 89 | 65511 | 12.5 | 12.8 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 93 | 193268 | 12.5 | 12.6 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 96 | 79207 | 312.5 | 272.7 | |
| 54 1,2-Dichloroethane | 62 | 6.354 | 6.354 | 0.000 | 94 | 84094 | 12.5 | 12.2 | |
| 57 n-Heptane | 100 | 6.448 | 6.448 | 0.000 | 95 | 10911 | 12.5 | 11.8 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 90 | 49378 | 12.5 | 12.6 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 91 | 73477 | 12.5 | 12.2 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 92 | 67301 | 12.5 | 12.1 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 93 | 27037 | 12.5 | 13.2 | |
| 64 1,4-Dioxane | 88 | 7.278 | 7.279 | 0.000 | 52 | 13824 | 250.0 | 260.2 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 94 | 56638 | 12.5 | 10.8 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 86 | 83773 | 25.0 | 25.2 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 87 | 79244 | 12.5 | 12.2 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 97 | 207867 | 25.0 | 23.8 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 97 | 199883 | 12.5 | 12.0 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 95 | 73419 | 12.5 | 12.0 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 92 | 72405 | 12.5 | 12.1 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 92 | 42329 | 12.5 | 11.7 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 93 | 42437 | 12.5 | 12.4 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 93 | 74819 | 12.5 | 11.7 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 98 | 149755 | 25.0 | 24.4 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 90 | 47712 | 12.5 | 12.6 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 97 | 41376 | 12.5 | 11.4 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 93 | 135414 | 12.5 | 12.2 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.377 | 0.000 | 97 | 76848 | 12.5 | 12.3 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 93 | 45289 | 12.5 | 12.0 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 97 | 95082 | 12.5 | 12.8 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 95 | 93787 | 12.5 | 12.8 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 92 | 156043 | 12.5 | 12.9 | |
| 89 Bromoform | 173 | 10.030 | 10.030 | 0.000 | 97 | 35648 | 12.5 | 11.9 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 230119 | 12.5 | 12.4 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 91 | 53474 | 12.5 | 11.6 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 95 | 63970 | 12.5 | 12.5 | |
| 97 N-Propylbenzene | 120 | 10.468 | 10.468 | 0.000 | 98 | 61448 | 12.5 | 12.1 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 91 | 20060 | 12.5 | 12.6 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 78 | 37787 | 12.5 | 11.8 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 95 | 51481 | 12.5 | 12.2 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 188642 | 12.5 | 12.1 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 98 | 52084 | 12.5 | 11.8 | |
| 102 tert-Butylbenzene | 119 | 10.883 | 10.883 | 0.000 | 95 | 146785 | 12.5 | 12.2 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.931 | 10.943 | -0.012 | 98 | 195366 | 12.5 | 12.1 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 93 | 224514 | 12.5 | 12.1 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 179533 | 12.5 | 12.1 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 96 | 103684 | 12.5 | 12.9 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 96 | 104750 | 12.5 | 12.4 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 97 | 153971 | 12.5 | 12.0 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 96 | 101373 | 12.5 | 12.6 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 80 | 17904 | 12.5 | 12.6 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 95 | 54001 | 12.5 | 12.1 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 96 | 20479 | 12.5 | 11.3 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 99 | 179326 | 12.5 | 11.7 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 97 | 52244 | 12.5 | 12.0 | |
| S 126 Total BTEX | 1 | | | | 0 | | 62.5 | 62.5 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 50.0 | 47.2 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 22.8 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 24.3 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 25.0 | 25.6 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 10.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 10.00 | Units: uL | |
| VMRPRIMW_00543 | Amount Added: | 10.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

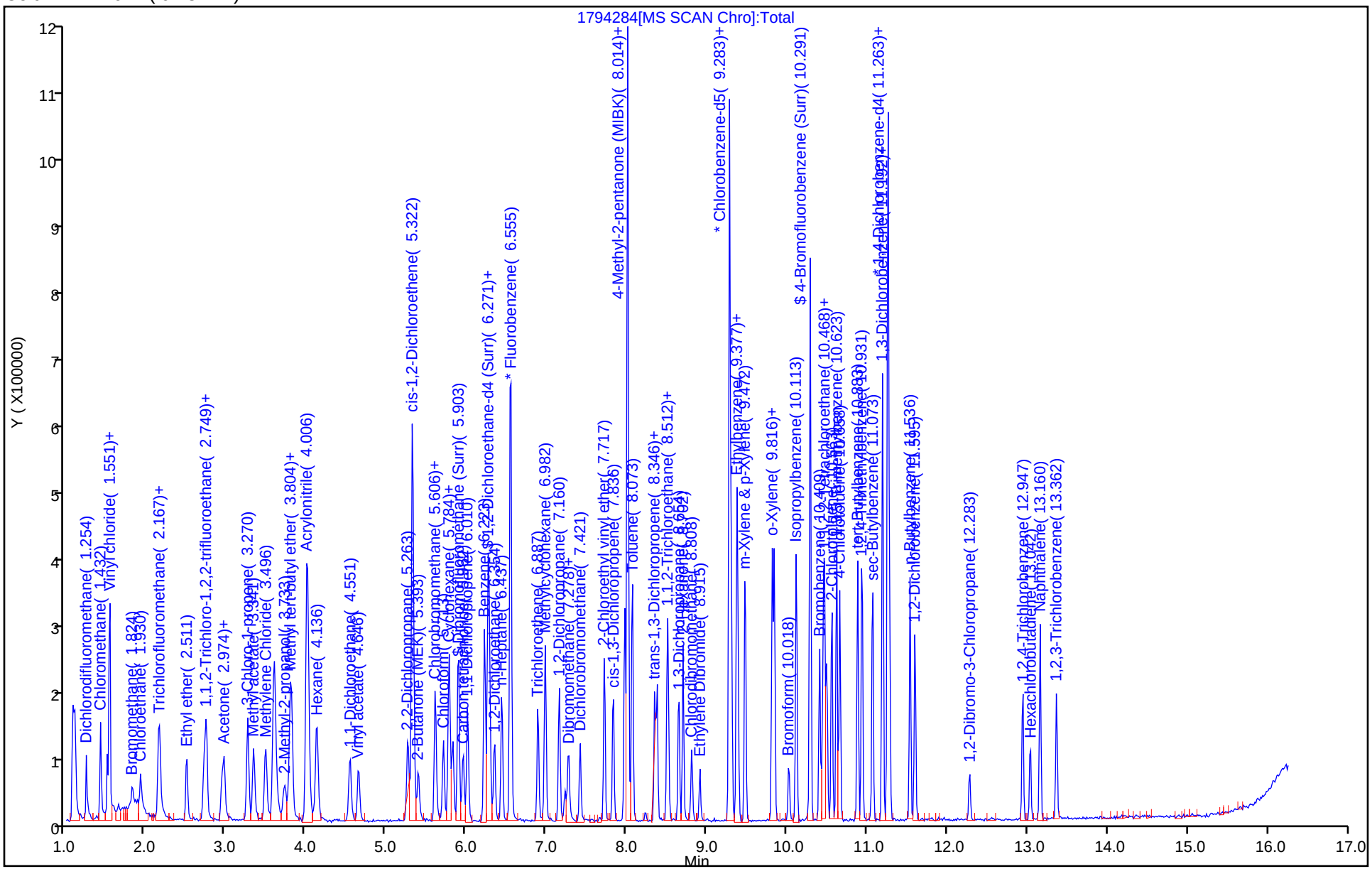
Report Date: 10-Aug-2023 14:52:23 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794284.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 15:57:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794285.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 6
Inject. Date: 09-Aug-2023 16:20:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-008
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:25 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 08:15:24

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 97 | 549461 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 456238 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 235547 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.903 | 0.000 | 93 | 142782 | 25.0 | 24.0 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 212018 | 25.0 | 25.4 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 578762 | 25.0 | 24.5 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 90 | 224892 | 25.0 | 24.5 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 97 | 133470 | 25.0 | 23.9 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 99 | 240561 | 25.0 | 23.9 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 97 | 165245 | 25.0 | 24.4 | |
| 12 Butadiene | 54 | 1.551 | 1.551 | 0.000 | 89 | 215626 | 25.0 | 23.6 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 91 | 23536 | 25.0 | 23.5 | |
| 14 Chloroethane | 64 | 1.930 | 1.930 | 0.000 | 95 | 75018 | 25.0 | 23.6 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 97 | 159938 | 25.0 | 24.6 | |
| 15 Dichlorofluoromethane | 67 | 2.179 | 2.179 | 0.000 | 96 | 193275 | 25.0 | 22.7 | |
| 17 Ethyl ether | 59 | 2.511 | 2.511 | 0.000 | 97 | 120380 | 25.0 | 24.2 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 94 | 63136 | 25.0 | 24.9 | |
| 18 Acrolein | 56 | 2.749 | 2.749 | 0.000 | 98 | 46322 | 125.0 | 118.7 | |
| 19 1,1-Dichloroethene | 96 | 2.749 | 2.749 | 0.000 | 89 | 73123 | 25.0 | 23.1 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 67 | 65653 | 25.0 | 23.6 | |
| 22 Acetone | 43 | 2.950 | 2.950 | 0.000 | 98 | 139187 | 50.0 | 49.2 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 99 | 225692 | 25.0 | 24.5 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 89 | 52107 | 25.0 | 23.7 | |
| 26 Methyl acetate | 43 | 3.341 | 3.341 | 0.000 | 99 | 371598 | 50.0 | 46.9 | |
| 28 Methylene Chloride | 84 | 3.496 | 3.496 | 0.000 | 88 | 92479 | 25.0 | 25.2 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 99 | 210149 | 250.0 | 237.3 | |
| 31 Methyl tert-butyl ether | 73 | 3.804 | 3.804 | 0.000 | 97 | 271271 | 25.0 | 24.3 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.816 | 0.000 | 87 | 88292 | 25.0 | 23.5 | |
| 30 Acrylonitrile | 53 | 4.017 | 4.017 | 0.000 | 99 | 945638 | 250.0 | 242.3 | |
| 33 Hexane | 86 | 4.136 | 4.136 | 0.000 | 93 | 22349 | 25.0 | 27.9 | |
| 35 1,1-Dichloroethane | 63 | 4.551 | 4.551 | 0.000 | 95 | 232911 | 25.0 | 23.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 314335 | 25.0 | 24.7 | |
| 42 2,2-Dichloropropane | 77 | 5.274 | 5.274 | 0.000 | 87 | 135536 | 25.0 | 22.5 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 52 | 102968 | 25.0 | 24.1 | |
| 39 2-Butanone (MEK) | 43 | 5.405 | 5.405 | 0.000 | 97 | 223242 | 50.0 | 50.6 | |
| 46 Tetrahydrofuran | 42 | 5.606 | 5.606 | 0.000 | 85 | 146766 | 50.0 | 46.1 | |
| 45 Chlorobromomethane | 128 | 5.618 | 5.618 | 0.000 | 85 | 45601 | 25.0 | 26.3 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 95 | 163694 | 25.0 | 24.7 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 89 | 279525 | 25.0 | 23.3 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 93 | 137859 | 25.0 | 24.1 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 96 | 116460 | 25.0 | 23.4 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 86 | 132498 | 25.0 | 25.1 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 95 | 391413 | 25.0 | 24.8 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 95 | 179209 | 625.0 | 602.7 | |
| 54 1,2-Dichloroethane | 62 | 6.354 | 6.354 | 0.000 | 95 | 169849 | 25.0 | 23.9 | |
| 57 n-Heptane | 100 | 6.448 | 6.448 | 0.000 | 96 | 21151 | 25.0 | 22.2 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 91 | 103878 | 25.0 | 25.7 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 90 | 145845 | 25.0 | 23.5 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 92 | 139352 | 25.0 | 24.4 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 93 | 51495 | 25.0 | 24.9 | |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.000 | 55 | 29433 | 500.0 | 538.0 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 96 | 121951 | 25.0 | 22.7 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 85 | 166537 | 50.0 | 48.6 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 86 | 168103 | 25.0 | 25.2 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 96 | 402715 | 50.0 | 44.8 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 96 | 419736 | 25.0 | 24.6 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 94 | 150632 | 25.0 | 24.1 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 92 | 138380 | 25.0 | 22.6 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 91 | 81906 | 25.0 | 22.1 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 95 | 83937 | 25.0 | 23.9 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 96 | 156006 | 25.0 | 23.8 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 99 | 305114 | 50.0 | 48.5 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 91 | 91738 | 25.0 | 23.6 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 98 | 88164 | 25.0 | 23.8 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 92 | 279404 | 25.0 | 24.6 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.377 | 0.000 | 97 | 158673 | 25.0 | 24.8 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 94 | 94847 | 25.0 | 24.6 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 98 | 183492 | 25.0 | 24.1 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 97 | 185317 | 25.0 | 24.8 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 95 | 310601 | 25.0 | 25.0 | |
| 89 Bromoform | 173 | 10.030 | 10.030 | 0.000 | 98 | 70251 | 25.0 | 22.8 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 458964 | 25.0 | 24.2 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 94 | 104004 | 25.0 | 22.8 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 95 | 124261 | 25.0 | 24.8 | |
| 97 N-Propylbenzene | 120 | 10.468 | 10.468 | 0.000 | 98 | 134095 | 25.0 | 26.6 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 88 | 41201 | 25.0 | 26.1 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 85 | 76012 | 25.0 | 24.0 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 95 | 105909 | 25.0 | 25.2 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 385528 | 25.0 | 24.8 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 98 | 112379 | 25.0 | 25.6 | |
| 102 tert-Butylbenzene | 119 | 10.883 | 10.883 | 0.000 | 94 | 302525 | 25.0 | 25.3 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.943 | 0.000 | 97 | 406949 | 25.0 | 25.3 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 440681 | 25.0 | 24.0 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 374258 | 25.0 | 25.4 | |
| 108 1,3-Dichlorobenzene | 146 | 11.192 | 11.192 | 0.000 | 98 | 208322 | 25.0 | 26.0 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 97 | 214962 | 25.0 | 25.7 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 98 | 317841 | 25.0 | 24.9 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 96 | 194651 | 25.0 | 24.3 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 82 | 35143 | 25.0 | 24.9 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 94 | 116009 | 25.0 | 26.1 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 95 | 42967 | 25.0 | 23.9 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 98 | 372780 | 25.0 | 24.5 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 98 | 105660 | 25.0 | 24.4 | |
| S 126 Total BTEX | 1 | | | | 0 | | 125.0 | 123.0 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 93.9 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 48.9 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 20.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 20.00 | Units: uL | |
| VMRPRIMW_00543 | Amount Added: | 20.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

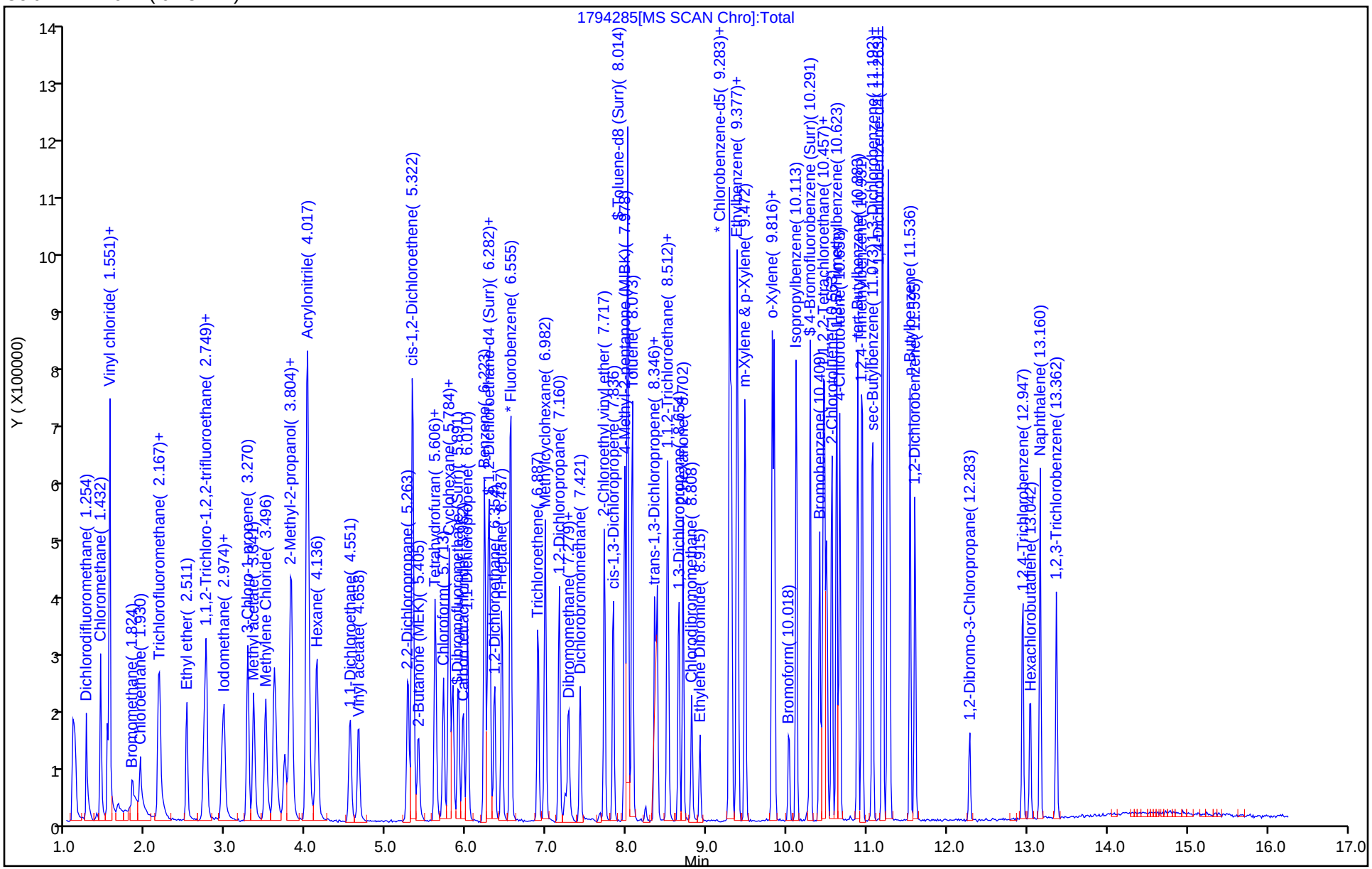
Report Date: 10-Aug-2023 14:52:27 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794285.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 16:20:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | icis | | | Worklist Smp#: | 8 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 7 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794286.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 09-Aug-2023 16:43:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-009
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:29 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 09:47:17

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.555 | -0.012 | 97 | 552149 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 450656 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 94 | 239268 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.903 | -0.012 | 94 | 150049 | 25.0 | 25.1 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 94 | 198462 | 25.0 | 23.6 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 591977 | 25.0 | 25.4 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 89 | 224819 | 25.0 | 24.8 | |
| 9 Dichlorodifluoromethane | 85 | 1.255 | 1.254 | 0.001 | 97 | 197183 | 37.5 | 35.2 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 99 | 361916 | 37.5 | 35.7 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 97 | 250848 | 37.5 | 36.9 | |
| 12 Butadiene | 54 | 1.539 | 1.551 | -0.012 | 91 | 332538 | 37.5 | 36.3 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 91 | 37654 | 37.5 | 37.3 | |
| 14 Chloroethane | 64 | 1.919 | 1.930 | -0.011 | 95 | 115962 | 37.5 | 36.3 | |
| 16 Trichlorofluoromethane | 101 | 2.144 | 2.156 | -0.012 | 96 | 245975 | 37.5 | 37.7 | |
| 15 Dichlorofluoromethane | 67 | 2.168 | 2.179 | -0.011 | 97 | 301215 | 37.5 | 35.2 | |
| 17 Ethyl ether | 59 | 2.500 | 2.511 | -0.011 | 96 | 188311 | 37.5 | 37.6 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 93 | 100865 | 37.5 | 39.9 | |
| 18 Acrolein | 56 | 2.737 | 2.749 | -0.012 | 99 | 72116 | 187.5 | 185.1 | |
| 19 1,1-Dichloroethene | 96 | 2.749 | 2.749 | 0.000 | 89 | 114648 | 37.5 | 36.0 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 93 | 104152 | 37.5 | 37.2 | |
| 22 Acetone | 43 | 2.938 | 2.950 | -0.012 | 100 | 203009 | 75.0 | 72.7 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 99 | 340731 | 37.5 | 36.8 | |
| 27 3-Chloro-1-propene | 76 | 3.259 | 3.270 | -0.011 | 90 | 83852 | 37.5 | 38.0 | |
| 26 Methyl acetate | 43 | 3.342 | 3.341 | 0.001 | 99 | 581205 | 75.0 | 73.1 | |
| 28 Methylene Chloride | 84 | 3.484 | 3.496 | -0.012 | 89 | 141241 | 37.5 | 38.7 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 99 | 325455 | 375.0 | 365.8 | |
| 31 Methyl tert-butyl ether | 73 | 3.792 | 3.804 | -0.012 | 95 | 440150 | 37.5 | 39.3 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.804 | 3.816 | -0.012 | 88 | 136894 | 37.5 | 36.3 | |
| 30 Acrylonitrile | 53 | 4.006 | 4.017 | -0.011 | 99 | 1469825 | 375.0 | 374.7 | |
| 33 Hexane | 86 | 4.136 | 4.136 | 0.000 | 93 | 31726 | 37.5 | 39.4 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.551 | -0.012 | 96 | 360033 | 37.5 | 36.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 486399 | 37.5 | 38.0 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.274 | -0.011 | 88 | 215084 | 37.5 | 35.5 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 60 | 149978 | 37.5 | 34.9 | |
| 39 2-Butanone (MEK) | 43 | 5.393 | 5.405 | -0.012 | 96 | 339163 | 75.0 | 76.8 | |
| 46 Tetrahydrofuran | 42 | 5.607 | 5.606 | 0.001 | 88 | 224502 | 75.0 | 70.2 | |
| 45 Chlorobromomethane | 128 | 5.607 | 5.618 | -0.011 | 82 | 65117 | 37.5 | 37.5 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 94 | 240256 | 37.5 | 36.1 | |
| 49 Cyclohexane | 56 | 5.785 | 5.784 | 0.000 | 89 | 426392 | 37.5 | 35.4 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 94 | 208164 | 37.5 | 36.2 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 94 | 190561 | 37.5 | 38.2 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 88 | 201453 | 37.5 | 38.0 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 95 | 610525 | 37.5 | 38.4 | |
| 52 Isobutyl alcohol | 41 | 6.283 | 6.282 | 0.001 | 96 | 273633 | 937.5 | 931.6 | |
| 54 1,2-Dichloroethane | 62 | 6.342 | 6.354 | -0.012 | 94 | 255750 | 37.5 | 35.8 | |
| 57 n-Heptane | 100 | 6.437 | 6.448 | -0.011 | 96 | 34771 | 37.5 | 36.4 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 91 | 153212 | 37.5 | 37.7 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 91 | 226791 | 37.5 | 36.3 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 93 | 215957 | 37.5 | 37.6 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 91 | 79093 | 37.5 | 38.2 | |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.001 | 84 | 39357 | 750.0 | 716.0 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 95 | 190944 | 37.5 | 35.3 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 87 | 272730 | 75.0 | 79.3 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 87 | 257927 | 37.5 | 38.5 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 96 | 650734 | 75.0 | 72.0 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 97 | 624763 | 37.5 | 37.1 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 96 | 232708 | 37.5 | 37.7 | |
| 73 Ethyl methacrylate | 69 | 8.382 | 8.381 | 0.001 | 89 | 204538 | 37.5 | 33.9 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 92 | 127593 | 37.5 | 34.8 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 95 | 130204 | 37.5 | 37.5 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 93 | 242124 | 37.5 | 37.4 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 99 | 475456 | 75.0 | 76.6 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 89 | 141636 | 37.5 | 37.0 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 100 | 139937 | 37.5 | 38.2 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 93 | 425389 | 37.5 | 37.9 | |
| 85 Ethylbenzene | 106 | 9.378 | 9.377 | 0.001 | 97 | 237715 | 37.5 | 37.6 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 94 | 151697 | 37.5 | 39.8 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 98 | 280824 | 37.5 | 37.3 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 97 | 285969 | 37.5 | 38.7 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 95 | 474094 | 37.5 | 38.6 | |
| 89 Bromoform | 173 | 10.018 | 10.030 | -0.012 | 98 | 113967 | 37.5 | 37.5 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 698759 | 37.5 | 37.3 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 93 | 166719 | 37.5 | 36.0 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 95 | 191809 | 37.5 | 37.8 | |
| 97 N-Propylbenzene | 120 | 10.469 | 10.468 | 0.001 | 99 | 186194 | 37.5 | 36.4 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 88 | 60673 | 37.5 | 37.9 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 87 | 113713 | 37.5 | 35.3 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 96 | 155400 | 37.5 | 36.4 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 589408 | 37.5 | 37.3 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 98 | 161005 | 37.5 | 36.1 | |
| 102 tert-Butylbenzene | 119 | 10.884 | 10.883 | 0.001 | 95 | 461038 | 37.5 | 37.9 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.931 | 10.943 | -0.012 | 97 | 620694 | 37.5 | 38.0 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 703489 | 37.5 | 37.7 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 566868 | 37.5 | 37.9 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 98 | 313766 | 37.5 | 38.6 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 98 | 320033 | 37.5 | 37.6 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 98 | 488433 | 37.5 | 37.7 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 95 | 297849 | 37.5 | 36.6 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 79 | 53196 | 37.5 | 37.1 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 95 | 176160 | 37.5 | 39.0 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 95 | 66679 | 37.5 | 36.6 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 99 | 604848 | 37.5 | 39.2 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 97 | 164350 | 37.5 | 37.3 | |
| S 126 Total BTEX | 1 | | | | 0 | | 187.5 | 189.2 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 150.0 | 145.9 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 71.2 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 76.2 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 75.0 | 76.0 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 30.00 | Units: uL | |
| VMRPRIMW_00543 | Amount Added: | 30.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 30.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

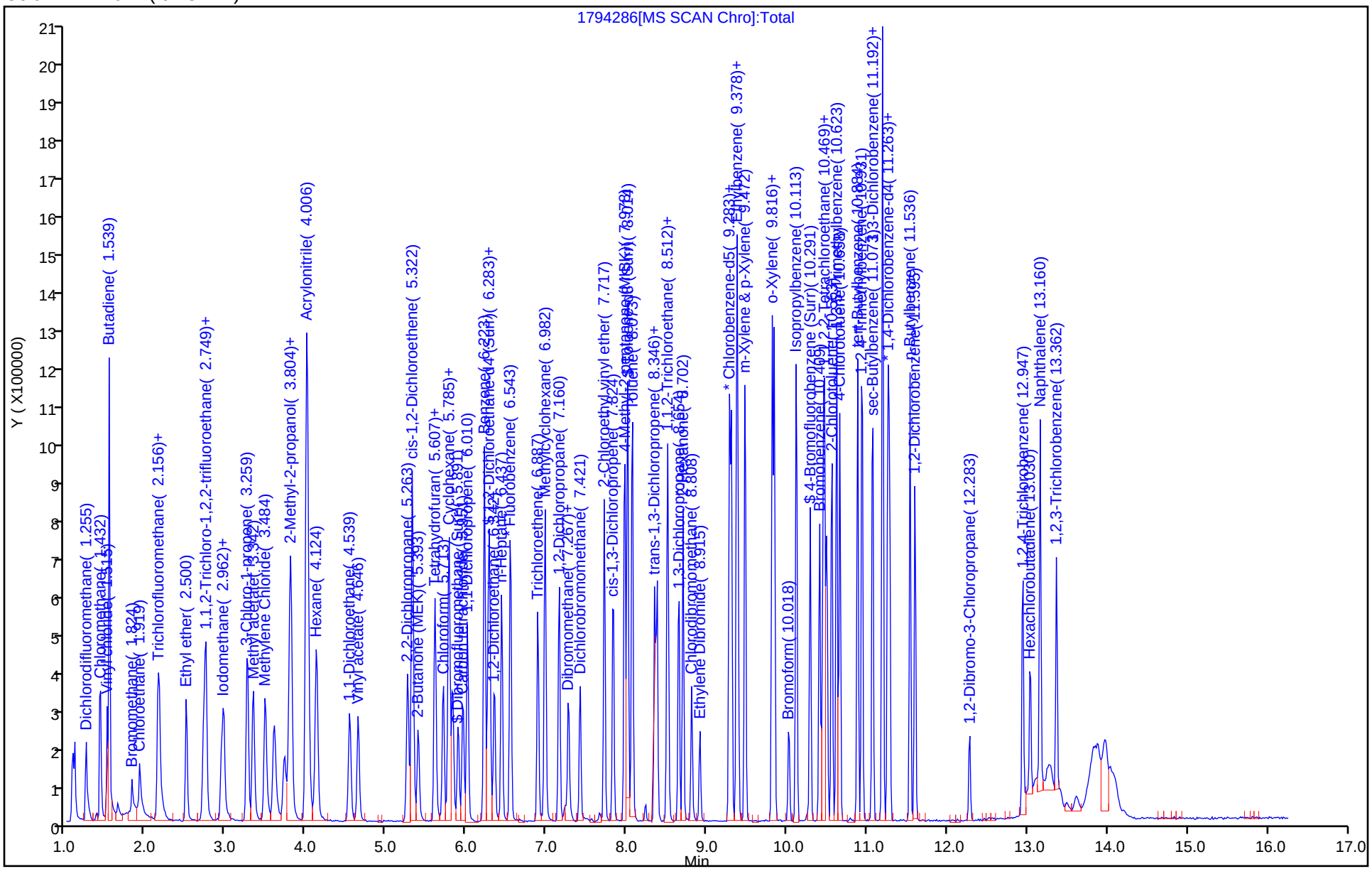
Report Date: 10-Aug-2023 14:52:30 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794286.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 16:43:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 9 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 8 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794287.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 09-Aug-2023 17:07:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-010
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:32 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 97 | 558680 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 89 | 467718 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 244253 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.903 | 0.000 | 93 | 147319 | 25.0 | 24.3 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 98 | 209066 | 25.0 | 24.6 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 589246 | 25.0 | 24.4 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 89 | 232746 | 25.0 | 24.8 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 97 | 266498 | 50.0 | 47.0 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 99 | 485535 | 50.0 | 47.4 | |
| 11 Vinyl chloride | 62 | 1.527 | 1.515 | 0.012 | 97 | 321893 | 50.0 | 46.7 | |
| 12 Butadiene | 54 | 1.551 | 1.551 | 0.000 | 88 | 417321 | 50.0 | 45.0 | |
| 13 Bromomethane | 94 | 1.835 | 1.824 | 0.011 | 91 | 51459 | 50.0 | 50.4 | |
| 14 Chloroethane | 64 | 1.930 | 1.930 | 0.000 | 93 | 132180 | 50.0 | 40.9 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 97 | 315104 | 50.0 | 47.7 | |
| 15 Dichlorofluoromethane | 67 | 2.179 | 2.179 | 0.000 | 97 | 384824 | 50.0 | 44.5 | |
| 17 Ethyl ether | 59 | 2.511 | 2.511 | 0.000 | 97 | 254041 | 50.0 | 50.1 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 93 | 128763 | 50.0 | 50.4 | |
| 18 Acrolein | 56 | 2.749 | 2.749 | 0.000 | 99 | 101622 | 250.0 | 258.8 | |
| 19 1,1-Dichloroethene | 96 | 2.760 | 2.749 | 0.011 | 89 | 145456 | 50.0 | 45.2 | |
| 23 Iodomethane | 142 | 2.962 | 2.950 | 0.012 | 94 | 139072 | 50.0 | 49.1 | |
| 22 Acetone | 43 | 2.950 | 2.950 | 0.000 | 99 | 287518 | 100.0 | 103.0 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 99 | 451059 | 50.0 | 48.2 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 89 | 106236 | 50.0 | 47.5 | |
| 26 Methyl acetate | 43 | 3.341 | 3.341 | 0.000 | 99 | 769799 | 100.0 | 95.6 | |
| 28 Methylene Chloride | 84 | 3.496 | 3.496 | 0.000 | 88 | 186821 | 50.0 | 50.8 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 99 | 446692 | 500.0 | 496.1 | |
| 31 Methyl tert-butyl ether | 73 | 3.804 | 3.804 | 0.000 | 95 | 583995 | 50.0 | 51.5 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.816 | 0.000 | 88 | 174941 | 50.0 | 45.9 | |
| 30 Acrylonitrile | 53 | 4.017 | 4.017 | 0.000 | 98 | 1944259 | 500.0 | 489.9 | |
| 33 Hexane | 86 | 4.136 | 4.136 | 0.000 | 93 | 44551 | 50.0 | 54.7 | |
| 35 1,1-Dichloroethane | 63 | 4.551 | 4.551 | 0.000 | 95 | 480443 | 50.0 | 48.1 | |
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 653942 | 50.0 | 50.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 42 2,2-Dichloropropane | 77 | 5.274 | 5.274 | 0.000 | 87 | 285897 | 50.0 | 46.6 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 69 | 199187 | 50.0 | 45.8 | |
| 39 2-Butanone (MEK) | 43 | 5.405 | 5.405 | 0.000 | 97 | 449152 | 100.0 | 100.7 | |
| 46 Tetrahydrofuran | 42 | 5.606 | 5.606 | 0.000 | 89 | 295685 | 100.0 | 91.4 | |
| 45 Chlorobromomethane | 128 | 5.618 | 5.618 | 0.000 | 87 | 89194 | 50.0 | 50.9 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 94 | 319464 | 50.0 | 47.4 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 90 | 563774 | 50.0 | 46.3 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 94 | 267941 | 50.0 | 46.0 | |
| 51 Carbon tetrachloride | 117 | 5.962 | 5.962 | 0.000 | 95 | 239646 | 50.0 | 47.5 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 87 | 273342 | 50.0 | 51.0 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 95 | 809952 | 50.0 | 50.4 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 94 | 375221 | 1250.0 | 1230.9 | |
| 54 1,2-Dichloroethane | 62 | 6.354 | 6.354 | 0.000 | 95 | 347337 | 50.0 | 48.0 | |
| 57 n-Heptane | 100 | 6.448 | 6.448 | 0.000 | 96 | 42302 | 50.0 | 43.8 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 91 | 201447 | 50.0 | 49.0 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 91 | 296760 | 50.0 | 47.0 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 93 | 282282 | 50.0 | 48.5 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 95 | 105030 | 50.0 | 50.3 | |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.000 | 88 | 62822 | 1000.0 | 1129.5 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 95 | 248570 | 50.0 | 45.5 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 88 | 370146 | 100.0 | 106.3 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 86 | 335159 | 50.0 | 49.4 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 96 | 884027 | 100.0 | 96.7 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 96 | 846782 | 50.0 | 48.4 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 94 | 309068 | 50.0 | 48.2 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 92 | 287967 | 50.0 | 46.0 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 92 | 172900 | 50.0 | 45.5 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 95 | 165672 | 50.0 | 45.9 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 95 | 323682 | 50.0 | 48.1 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 99 | 635989 | 100.0 | 98.7 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 89 | 188636 | 50.0 | 47.4 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 98 | 188362 | 50.0 | 49.5 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 92 | 564029 | 50.0 | 48.5 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.377 | 0.000 | 97 | 321333 | 50.0 | 49.0 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 94 | 201486 | 50.0 | 51.0 | |
| 86 m-Xylene & p-Xylene | 106 | 9.484 | 9.472 | 0.012 | 97 | 381519 | 50.0 | 48.8 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 97 | 376183 | 50.0 | 49.1 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 93 | 624753 | 50.0 | 49.0 | |
| 89 Bromoform | 173 | 10.030 | 10.030 | 0.000 | 99 | 147149 | 50.0 | 46.7 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 925592 | 50.0 | 47.6 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 91 | 223141 | 50.0 | 47.2 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 94 | 257917 | 50.0 | 49.9 | |
| 97 N-Propylbenzene | 120 | 10.468 | 10.468 | 0.000 | 98 | 256490 | 50.0 | 49.1 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 89 | 80677 | 50.0 | 49.3 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 83 | 152563 | 50.0 | 46.4 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 96 | 208474 | 50.0 | 47.8 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 789295 | 50.0 | 48.9 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 99 | 219735 | 50.0 | 48.2 | |
| 102 tert-Butylbenzene | 119 | 10.883 | 10.883 | 0.000 | 95 | 618612 | 50.0 | 49.8 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.943 | 0.000 | 98 | 805914 | 50.0 | 48.3 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 916813 | 50.0 | 48.1 | |
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 755936 | 50.0 | 49.5 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 96 | 407230 | 50.0 | 49.0 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 96 | 428374 | 50.0 | 49.3 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 98 | 648686 | 50.0 | 49.0 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 96 | 409628 | 50.0 | 49.3 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 82 | 73252 | 50.0 | 50.0 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 95 | 244667 | 50.0 | 53.1 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 95 | 90029 | 50.0 | 48.4 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 99 | 797635 | 50.0 | 50.6 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 97 | 223725 | 50.0 | 49.7 | |
| S 126 Total BTEX | 1 | | | | 0 | | 250.0 | 245.7 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 200.0 | 187.0 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 91.7 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 97.7 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 100.0 | 97.9 | |

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMAROLISTDW_00496 | Amount Added: 40.00 | Units: uL | | |
| VMRGAS_00488 | Amount Added: 40.00 | Units: uL | | |
| VMRPRIMW_00543 | Amount Added: 40.00 | Units: uL | | |
| vm40ml_vials_00024 | Amount Added: 0.00 | Units: | Run Reagent | |
| vm25UX18IS_00007 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vm25UX18SS_00008 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vmDist_H2o_00239 | Amount Added: 0.00 | Units: | Run Reagent | |

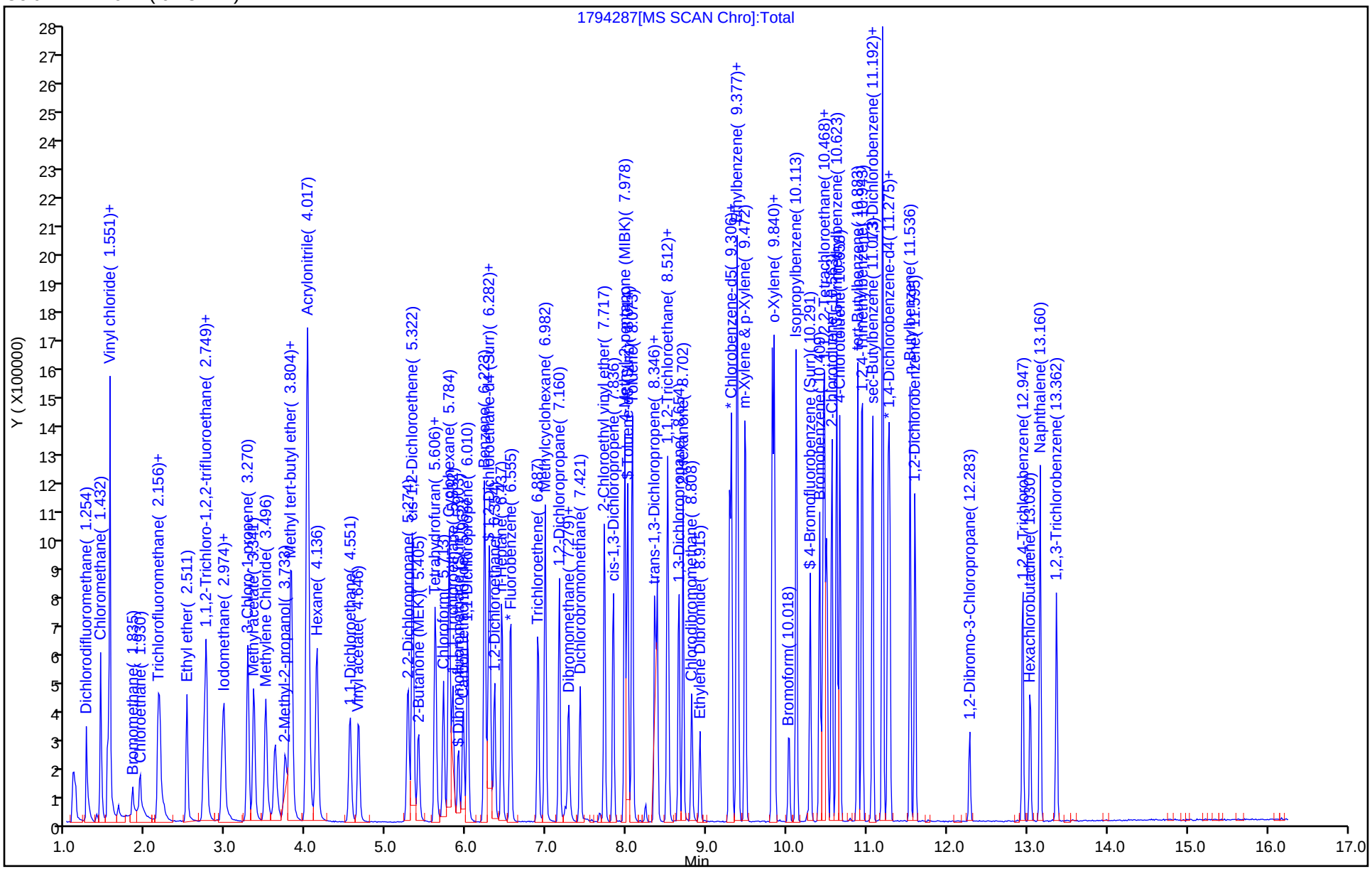
Report Date: 10-Aug-2023 14:52:33 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794287.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 17:07:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 10 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 9 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794288.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 09-Aug-2023 17:30:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-011
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 10-Aug-2023 14:52:38 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1615

First Level Reviewer: HE9L Date: 10-Aug-2023 08:21:09

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.555 | -0.012 | 97 | 575595 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 446147 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 237648 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.903 | -0.012 | 93 | 149637 | 25.0 | 24.0 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | -0.001 | 97 | 206933 | 25.0 | 23.7 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 591432 | 25.0 | 25.6 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 88 | 228688 | 25.0 | 25.5 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 98 | 317603 | 62.5 | 54.3 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 99 | 590615 | 62.5 | 55.9 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 97 | 422782 | 62.5 | 59.6 | |
| 12 Butadiene | 54 | 1.539 | 1.551 | -0.012 | 93 | 534631 | 62.5 | 56.0 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 90 | 66950 | 62.5 | 63.7 | |
| 14 Chloroethane | 64 | 1.918 | 1.930 | -0.012 | 91 | 145438 | 62.5 | 43.7 | |
| 16 Trichlorofluoromethane | 101 | 2.144 | 2.156 | -0.012 | 97 | 391994 | 62.5 | 57.7 | |
| 15 Dichlorofluoromethane | 67 | 2.167 | 2.179 | -0.012 | 97 | 494830 | 62.5 | 55.5 | |
| 17 Ethyl ether | 59 | 2.500 | 2.511 | -0.011 | 96 | 317297 | 62.5 | 60.8 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.713 | 2.725 | -0.012 | 93 | 158356 | 62.5 | 60.2 | |
| 18 Acrolein | 56 | 2.737 | 2.749 | -0.012 | 95 | 126395 | 312.5 | 312.9 | |
| 19 1,1-Dichloroethene | 96 | 2.749 | 2.749 | 0.000 | 89 | 173304 | 62.5 | 52.2 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 95 | 176661 | 62.5 | 60.6 | |
| 22 Acetone | 43 | 2.938 | 2.950 | -0.012 | 98 | 358213 | 125.0 | 125.2 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 99 | 557603 | 62.5 | 57.8 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 89 | 132927 | 62.5 | 57.7 | |
| 26 Methyl acetate | 43 | 3.341 | 3.341 | 0.000 | 100 | 936792 | 125.0 | 113.0 | |
| 28 Methylene Chloride | 84 | 3.484 | 3.496 | -0.012 | 88 | 225647 | 62.5 | 59.7 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 99 | 580436 | 625.0 | 625.8 | |
| 31 Methyl tert-butyl ether | 73 | 3.804 | 3.804 | 0.000 | 95 | 710613 | 62.5 | 60.9 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.804 | 3.816 | -0.012 | 87 | 209568 | 62.5 | 53.3 | |
| 30 Acrylonitrile | 53 | 4.006 | 4.017 | -0.011 | 99 | 2429625 | 625.0 | 594.2 | |
| 33 Hexane | 86 | 4.124 | 4.136 | -0.012 | 93 | 54297 | 62.5 | 64.7 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.551 | -0.012 | 96 | 589920 | 62.5 | 57.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 816185 | 62.5 | 61.1 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.274 | -0.011 | 87 | 340890 | 62.5 | 54.0 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 89 | 248403 | 62.5 | 55.5 | |
| 39 2-Butanone (MEK) | 43 | 5.393 | 5.405 | -0.012 | 96 | 562997 | 125.0 | 122.6 | |
| 46 Tetrahydrofuran | 42 | 5.606 | 5.606 | 0.000 | 88 | 377518 | 125.0 | 113.3 | |
| 45 Chlorobromomethane | 128 | 5.606 | 5.618 | -0.012 | 83 | 107096 | 62.5 | 59.4 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 95 | 390450 | 62.5 | 56.2 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 89 | 689830 | 62.5 | 55.0 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 94 | 333097 | 62.5 | 55.5 | |
| 51 Carbon tetrachloride | 117 | 5.950 | 5.962 | -0.012 | 95 | 296778 | 62.5 | 57.0 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 87 | 331636 | 62.5 | 60.0 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 95 | 984575 | 62.5 | 59.4 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 96 | 473727 | 1562.5 | 1629.2 | |
| 54 1,2-Dichloroethane | 62 | 6.354 | 6.354 | 0.000 | 94 | 423997 | 62.5 | 56.9 | |
| 57 n-Heptane | 100 | 6.437 | 6.448 | -0.011 | 96 | 52207 | 62.5 | 52.4 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 92 | 249691 | 62.5 | 58.9 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 92 | 369834 | 62.5 | 56.8 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 93 | 348073 | 62.5 | 58.1 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 93 | 130582 | 62.5 | 60.8 | |
| 64 1,4-Dioxane | 88 | 7.278 | 7.279 | 0.000 | 84 | 72156 | 1250.0 | 1259.1 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 95 | 306298 | 62.5 | 54.4 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 88 | 454287 | 125.0 | 126.7 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 86 | 412609 | 62.5 | 59.1 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 96 | 1085989 | 125.0 | 115.3 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 96 | 1028090 | 62.5 | 61.7 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 96 | 381124 | 62.5 | 62.4 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 91 | 350461 | 62.5 | 58.7 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 94 | 210553 | 62.5 | 58.0 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 95 | 205714 | 62.5 | 59.8 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 94 | 394443 | 62.5 | 61.5 | |
| 77 2-Hexanone | 43 | 8.701 | 8.702 | -0.001 | 99 | 784526 | 125.0 | 127.6 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 89 | 237004 | 62.5 | 62.5 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 97 | 236111 | 62.5 | 65.1 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 91 | 685914 | 62.5 | 61.8 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.377 | 0.000 | 98 | 380587 | 62.5 | 60.8 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 93 | 236034 | 62.5 | 62.6 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 97 | 453267 | 62.5 | 60.8 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 97 | 456350 | 62.5 | 62.4 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 94 | 772101 | 62.5 | 63.5 | |
| 89 Bromoform | 173 | 10.030 | 10.030 | 0.000 | 98 | 187936 | 62.5 | 62.5 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 1108271 | 62.5 | 59.7 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 90 | 264463 | 62.5 | 57.4 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 95 | 315883 | 62.5 | 62.9 | |
| 97 N-Propylbenzene | 120 | 10.468 | 10.468 | 0.000 | 99 | 307714 | 62.5 | 60.5 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 88 | 108369 | 62.5 | 68.1 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 84 | 200963 | 62.5 | 62.8 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 95 | 254044 | 62.5 | 59.9 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 940818 | 62.5 | 59.9 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 98 | 264151 | 62.5 | 59.6 | |
| 102 tert-Butylbenzene | 119 | 10.883 | 10.883 | 0.000 | 95 | 747949 | 62.5 | 61.9 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.943 | 0.000 | 98 | 976615 | 62.5 | 60.2 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 1098248 | 62.5 | 59.2 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 906915 | 62.5 | 61.1 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 98 | 518250 | 62.5 | 64.1 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 97 | 522316 | 62.5 | 61.8 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 98 | 777645 | 62.5 | 60.4 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 95 | 481347 | 62.5 | 59.5 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 84 | 95894 | 62.5 | 67.3 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 95 | 300223 | 62.5 | 66.9 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 94 | 111350 | 62.5 | 61.5 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 99 | 974194 | 62.5 | 63.5 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 97 | 271359 | 62.5 | 62.0 | |
| S 126 Total BTEX | 1 | | | | 0 | | 312.5 | 305.2 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 250.0 | 235.5 | |
| S 128 1,2-Dichloroethene, Total | 96 | | | | 0 | | | 108.8 | |
| S 129 1,3-Dichloropropene, Total | 75 | | | | 0 | | | 121.4 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 125.0 | 123.3 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRGAS_00488 | Amount Added: | 50.00 | Units: uL | |
| VMAROLISTDW_00496 | Amount Added: | 50.00 | Units: uL | |
| VMRPRIMW_00543 | Amount Added: | 50.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

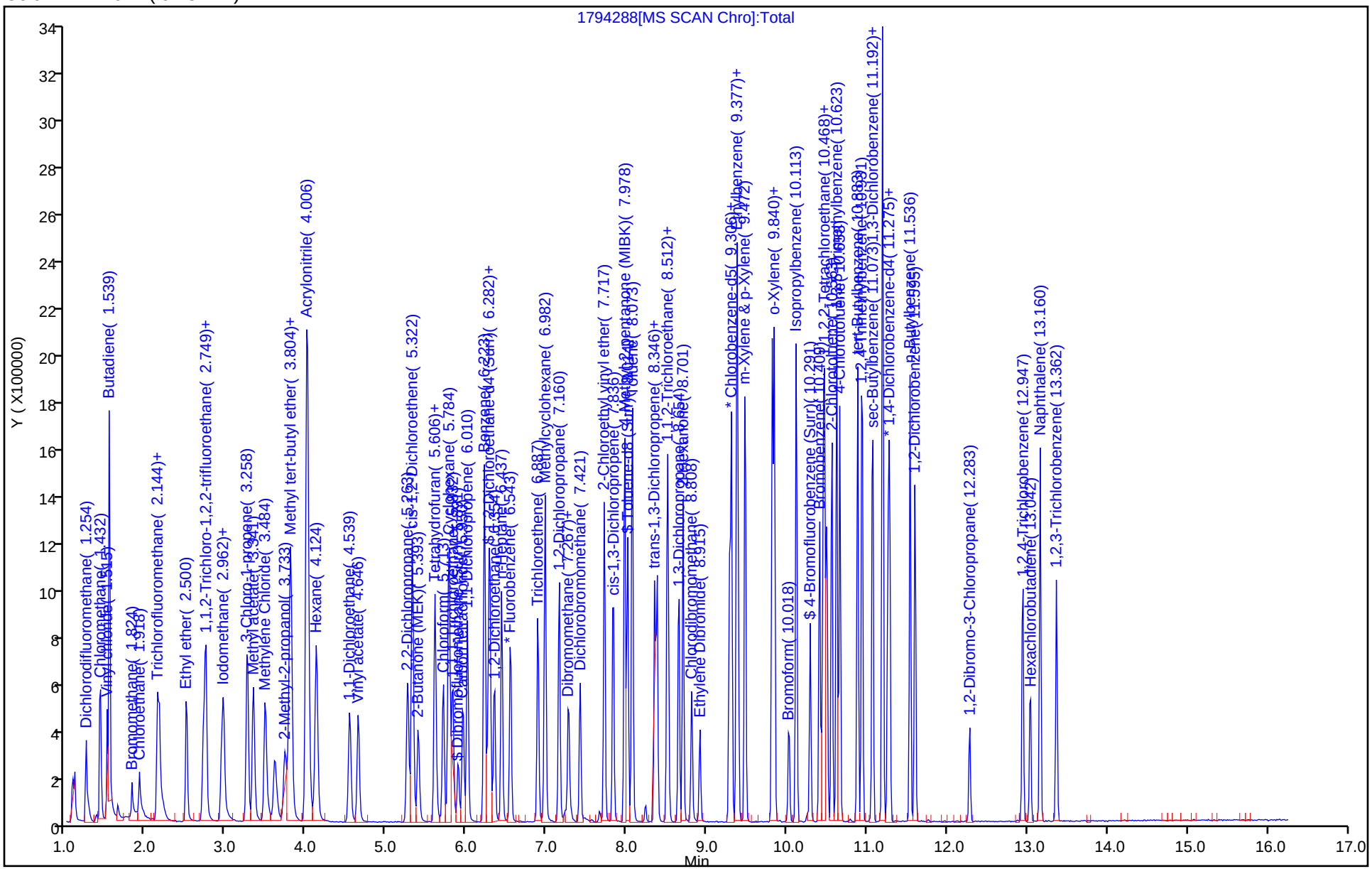
Report Date: 10-Aug-2023 14:52:39 Chrom Revision: 2.3 03-Aug-2023 16:11:04

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794288.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 17:30:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ic | | | Worklist Smp#: | 11 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 10 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



## Calibration / Dichlorodifluoromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

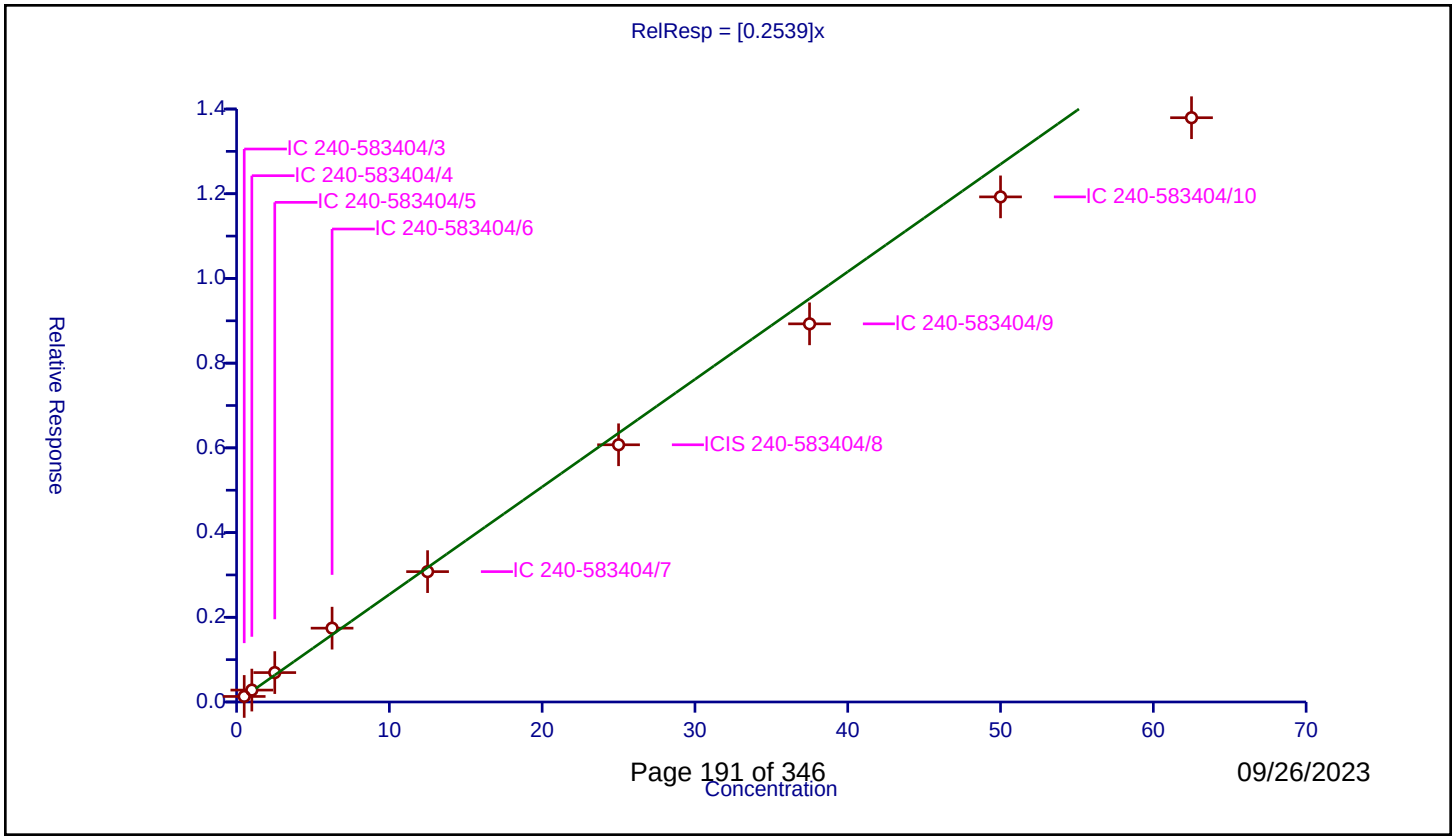
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2539 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 171000 |
| **Relative Standard Error:** | 8.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.130654 | 25.0 | 519883.0 | 0.261309 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.2812 | 25.0 | 528806.0 | 0.2812 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.693878 | 25.0 | 528011.0 | 0.277551 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.743156 | 25.0 | 536656.0 | 0.278905 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.077831 | 25.0 | 533582.0 | 0.246226 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 6.072769 | 25.0 | 549461.0 | 0.242911 | Y |
| 7 | IC 240-583404/9 | 37.5 | 8.92798 | 25.0 | 552149.0 | 0.238079 | Y |
| 8 | IC 240-583404/10 | 50.0 | 11.925342 | 25.0 | 558680.0 | 0.238507 | Y |
| 9 | IC 240-583404/11 | 62.5 | 13.794552 | 25.0 | 575595.0 | 0.220713 | Y |



## Calibration / Chloromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

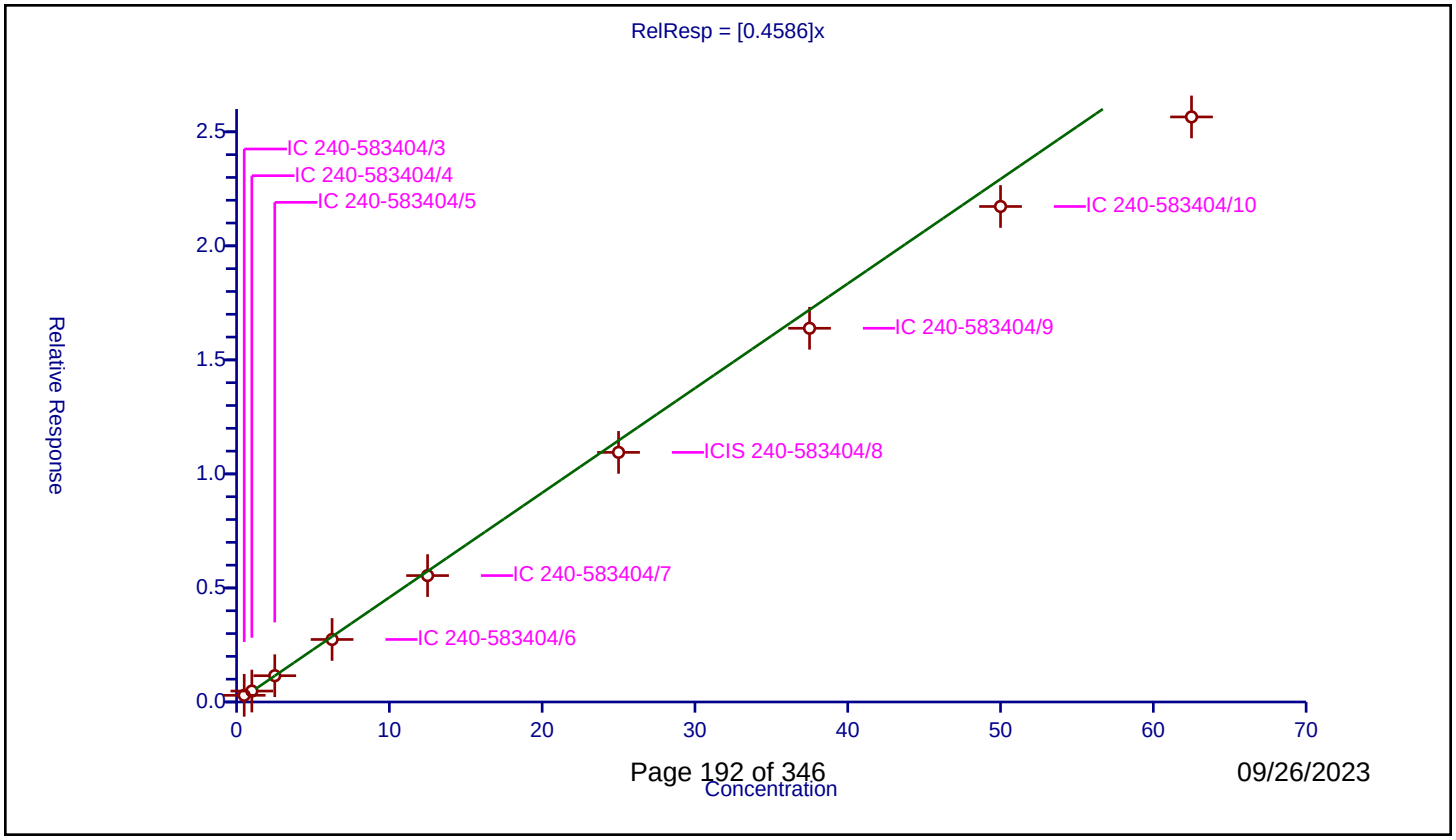
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4586 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 315000 |
| **Relative Standard Error:** | 11.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.292422 | 25.0 | 519883.0 | 0.584843 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.479902 | 25.0 | 528806.0 | 0.479902 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.152059 | 25.0 | 528011.0 | 0.460824 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.740722 | 25.0 | 536656.0 | 0.438516 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.542962 | 25.0 | 533582.0 | 0.443437 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 10.945317 | 25.0 | 549461.0 | 0.437813 | Y |
| 7 | IC 240-583404/9 | 37.5 | 16.3867 | 25.0 | 552149.0 | 0.436979 | Y |
| 8 | IC 240-583404/10 | 50.0 | 21.726883 | 25.0 | 558680.0 | 0.434538 | Y |
| 9 | IC 240-583404/11 | 62.5 | 25.652368 | 25.0 | 575595.0 | 0.410438 | Y |



## Calibration / Vinyl chloride

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

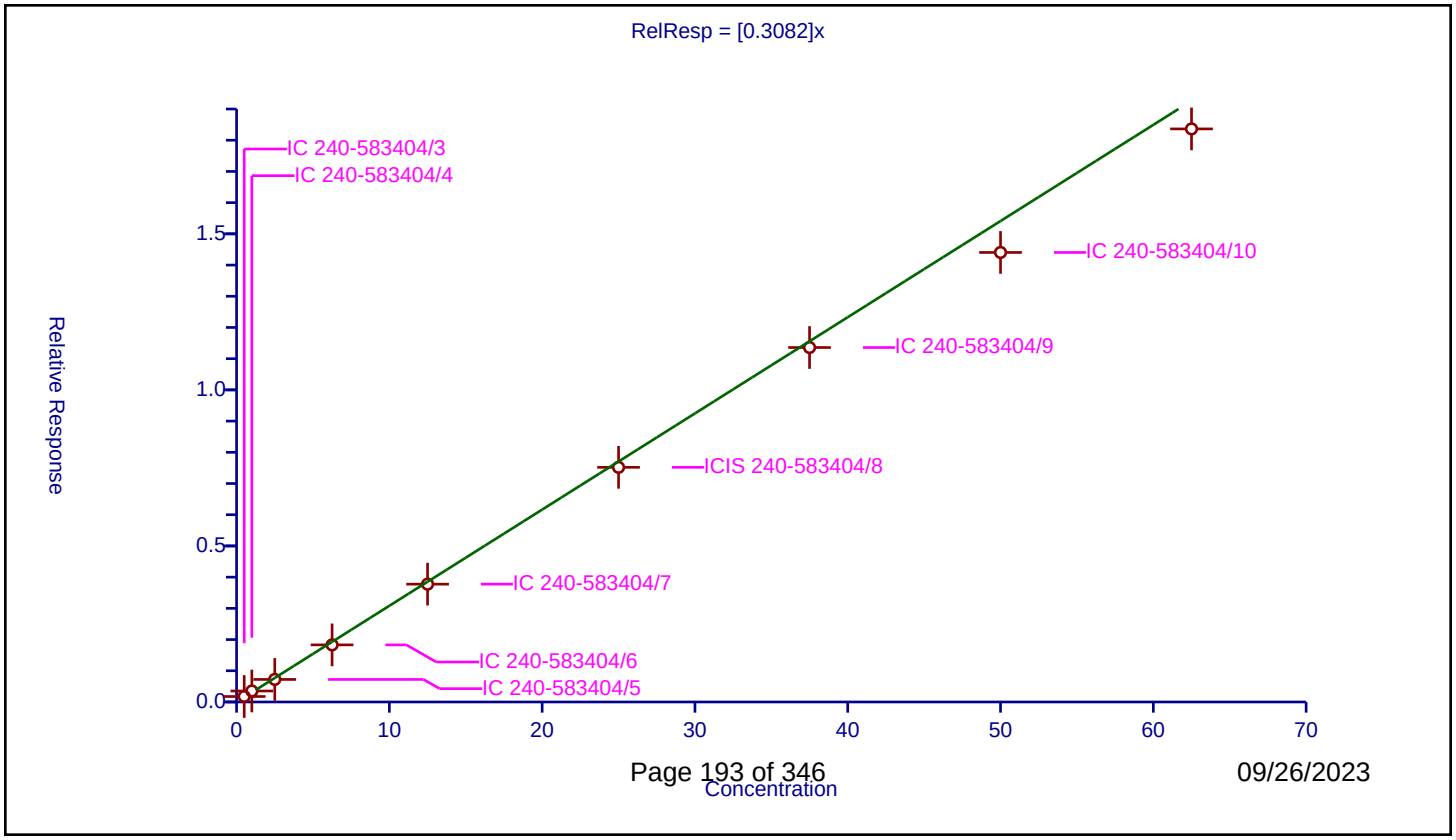
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3082 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 218000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.175905 | 25.0 | 519883.0 | 0.35181 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.352776 | 25.0 | 528806.0 | 0.352776 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.722475 | 25.0 | 528011.0 | 0.28899 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.82999 | 25.0 | 536656.0 | 0.292798 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.775474 | 25.0 | 533582.0 | 0.302038 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 7.518504 | 25.0 | 549461.0 | 0.30074 | Y |
| 7 | IC 240-583404/9 | 37.5 | 11.357804 | 25.0 | 552149.0 | 0.302875 | Y |
| 8 | IC 240-583404/10 | 50.0 | 14.404176 | 25.0 | 558680.0 | 0.288084 | Y |
| 9 | IC 240-583404/11 | 62.5 | 18.362825 | 25.0 | 575595.0 | 0.293805 | Y |



## Calibration / Butadiene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

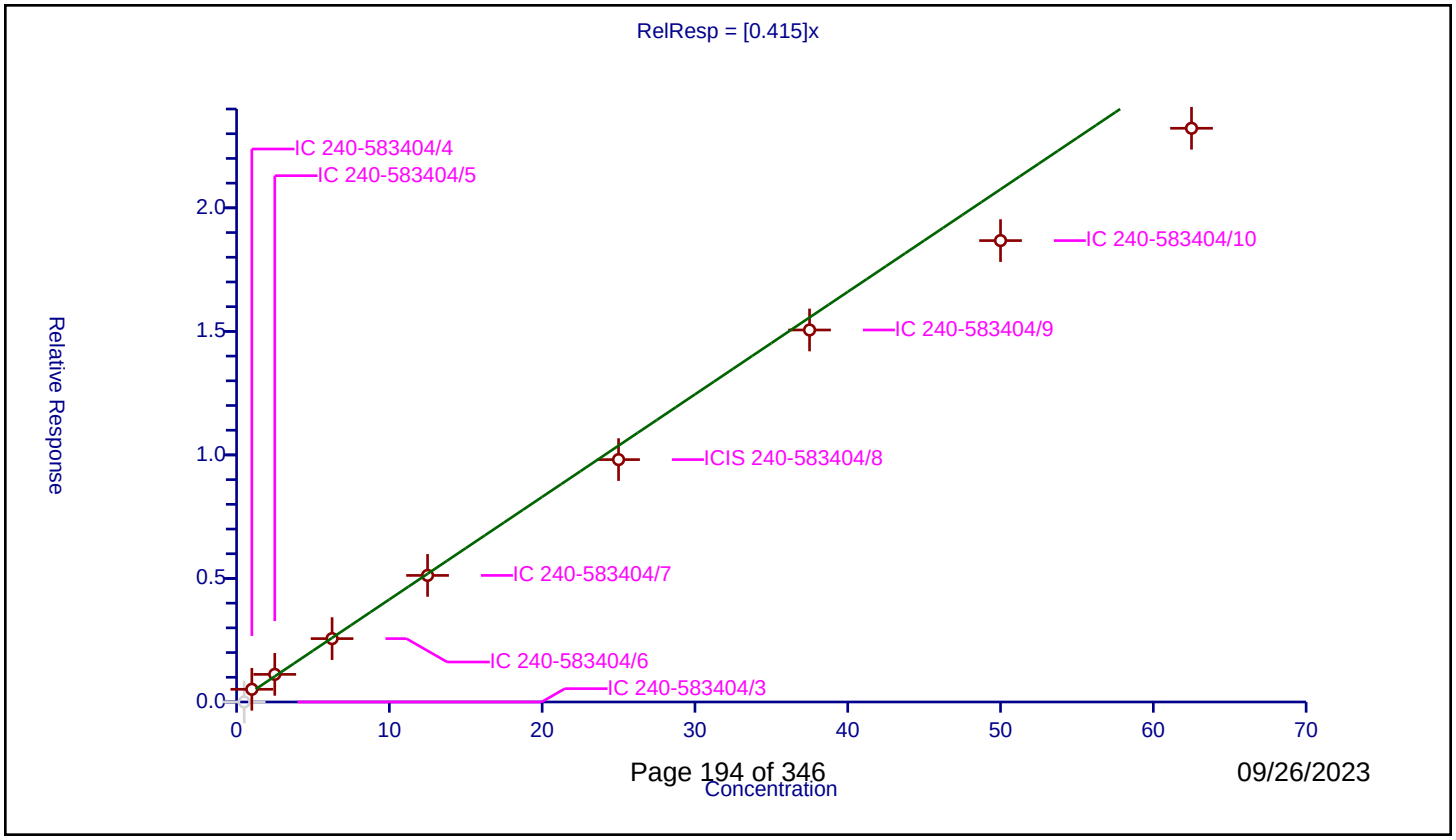
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.415 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 301000 |
| **Relative Standard Error:** | 11.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.981 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.513752 | 25.0 | 528806.0 | 0.513752 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.117638 | 25.0 | 528011.0 | 0.447055 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.564911 | 25.0 | 536656.0 | 0.410386 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.123252 | 25.0 | 533582.0 | 0.40986 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 9.810796 | 25.0 | 549461.0 | 0.392432 | Y |
| 7 | IC 240-583404/9 | 37.5 | 15.056534 | 25.0 | 552149.0 | 0.401508 | Y |
| 8 | IC 240-583404/10 | 50.0 | 18.67442 | 25.0 | 558680.0 | 0.373488 | Y |
| 9 | IC 240-583404/11 | 62.5 | 23.220798 | 25.0 | 575595.0 | 0.371533 | Y |



## Calibration / Bromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

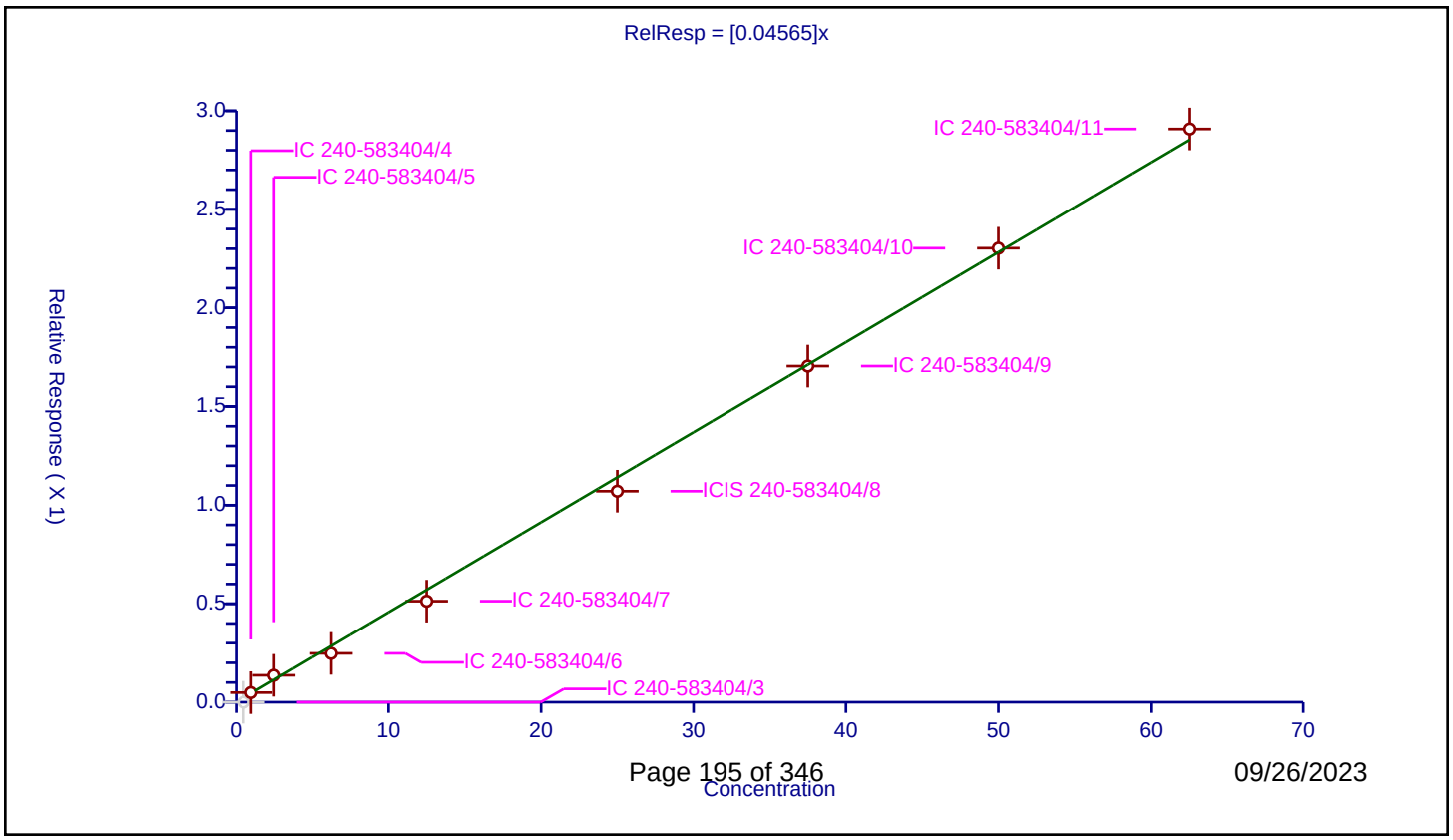
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.04565 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 36400 |
| **Relative Standard Error:** | 10.4 |
| **Correlation Coefficient:** | 0.997 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.048931 | 25.0 | 528806.0 | 0.048931 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.136692 | 25.0 | 528011.0 | 0.054677 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.247971 | 25.0 | 536656.0 | 0.039675 | Y |
| 5 | IC 240-583404/7 | 12.5 | 0.512995 | 25.0 | 533582.0 | 0.04104 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 1.070868 | 25.0 | 549461.0 | 0.042835 | Y |
| 7 | IC 240-583404/9 | 37.5 | 1.704884 | 25.0 | 552149.0 | 0.045464 | Y |
| 8 | IC 240-583404/10 | 50.0 | 2.302705 | 25.0 | 558680.0 | 0.046054 | Y |
| 9 | IC 240-583404/11 | 62.5 | 2.907861 | 25.0 | 575595.0 | 0.046526 | Y |



## Calibration / Chloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

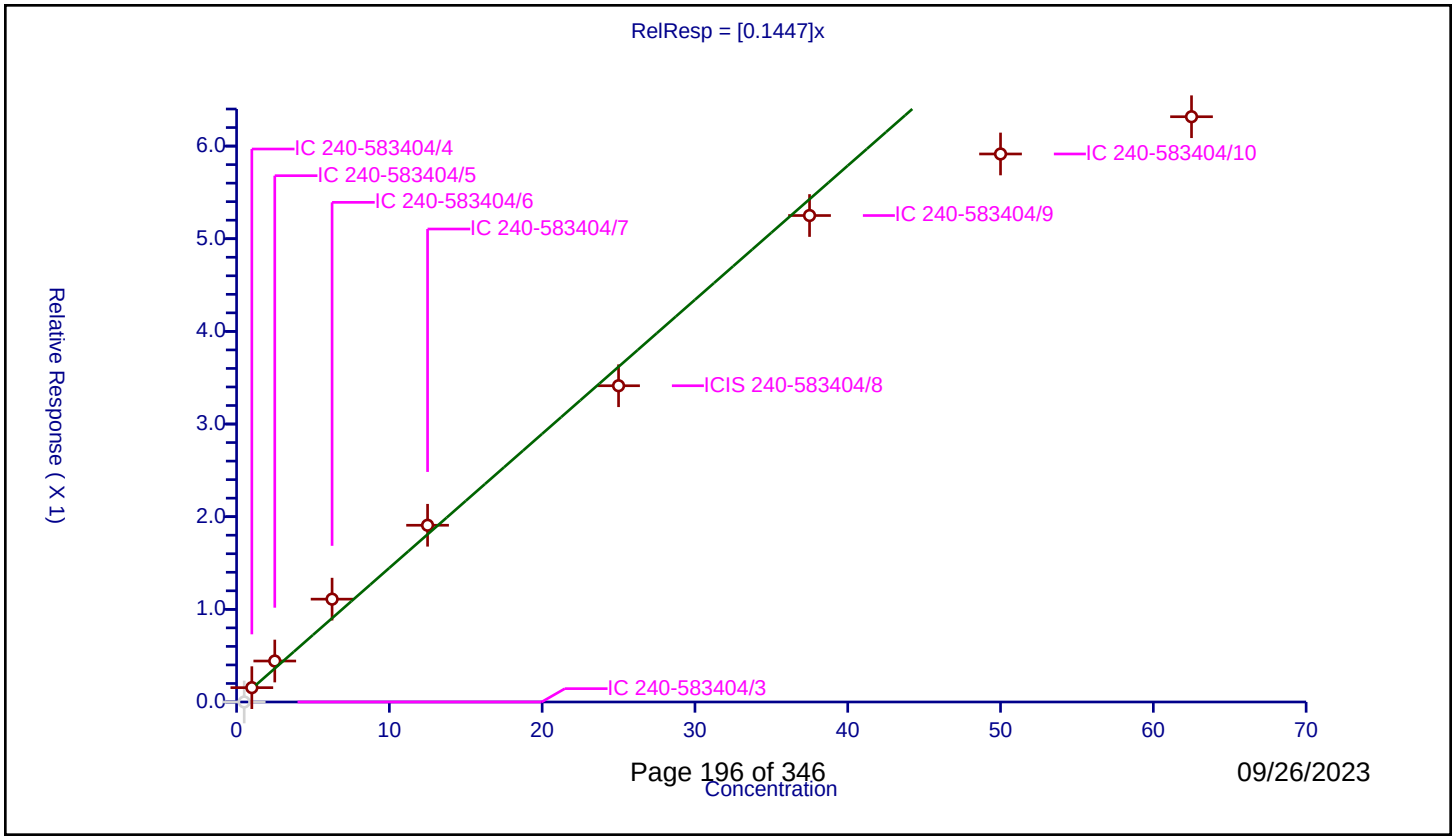
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1447 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 92600 |
| **Relative Standard Error:** | 18.4 |
| **Correlation Coefficient:** | 0.973 |
| **Coefficient of Determination (Adjusted):** | 0.954 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.154688 | 25.0 | 528806.0 | 0.154688 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.442368 | 25.0 | 528011.0 | 0.176947 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.109882 | 25.0 | 536656.0 | 0.177581 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.907392 | 25.0 | 533582.0 | 0.152591 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 3.413254 | 25.0 | 549461.0 | 0.13653 | Y |
| 7 | IC 240-583404/9 | 37.5 | 5.250485 | 25.0 | 552149.0 | 0.140013 | Y |
| 8 | IC 240-583404/10 | 50.0 | 5.914835 | 25.0 | 558680.0 | 0.118297 | Y |
| 9 | IC 240-583404/11 | 62.5 | 6.316855 | 25.0 | 575595.0 | 0.10107 | Y |






09/26/2023

## Calibration / Trichlorofluoromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

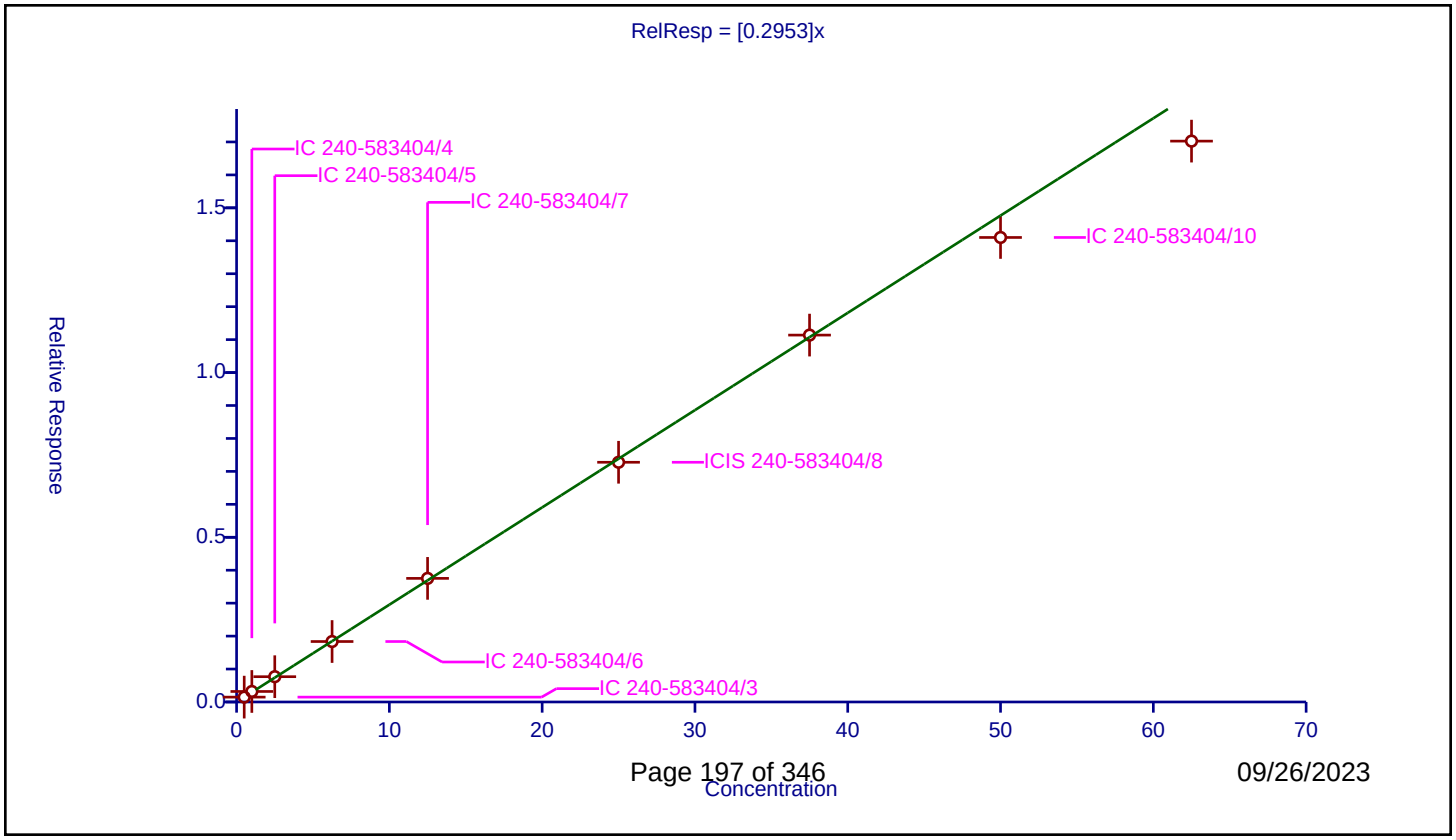
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2953 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 208000 |
| **Relative Standard Error:** | 4.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.147341 | 25.0 | 519883.0 | 0.294682 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.319635 | 25.0 | 528806.0 | 0.319635 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.767882 | 25.0 | 528011.0 | 0.307153 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.83544 | 25.0 | 536656.0 | 0.29367 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.752141 | 25.0 | 533582.0 | 0.300171 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 7.277041 | 25.0 | 549461.0 | 0.291082 | Y |
| 7 | IC 240-583404/9 | 37.5 | 11.137166 | 25.0 | 552149.0 | 0.296991 | Y |
| 8 | IC 240-583404/10 | 50.0 | 14.100379 | 25.0 | 558680.0 | 0.282008 | Y |
| 9 | IC 240-583404/11 | 62.5 | 17.0256 | 25.0 | 575595.0 | 0.27241 | Y |



## Calibration / Dichlorofluoromethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

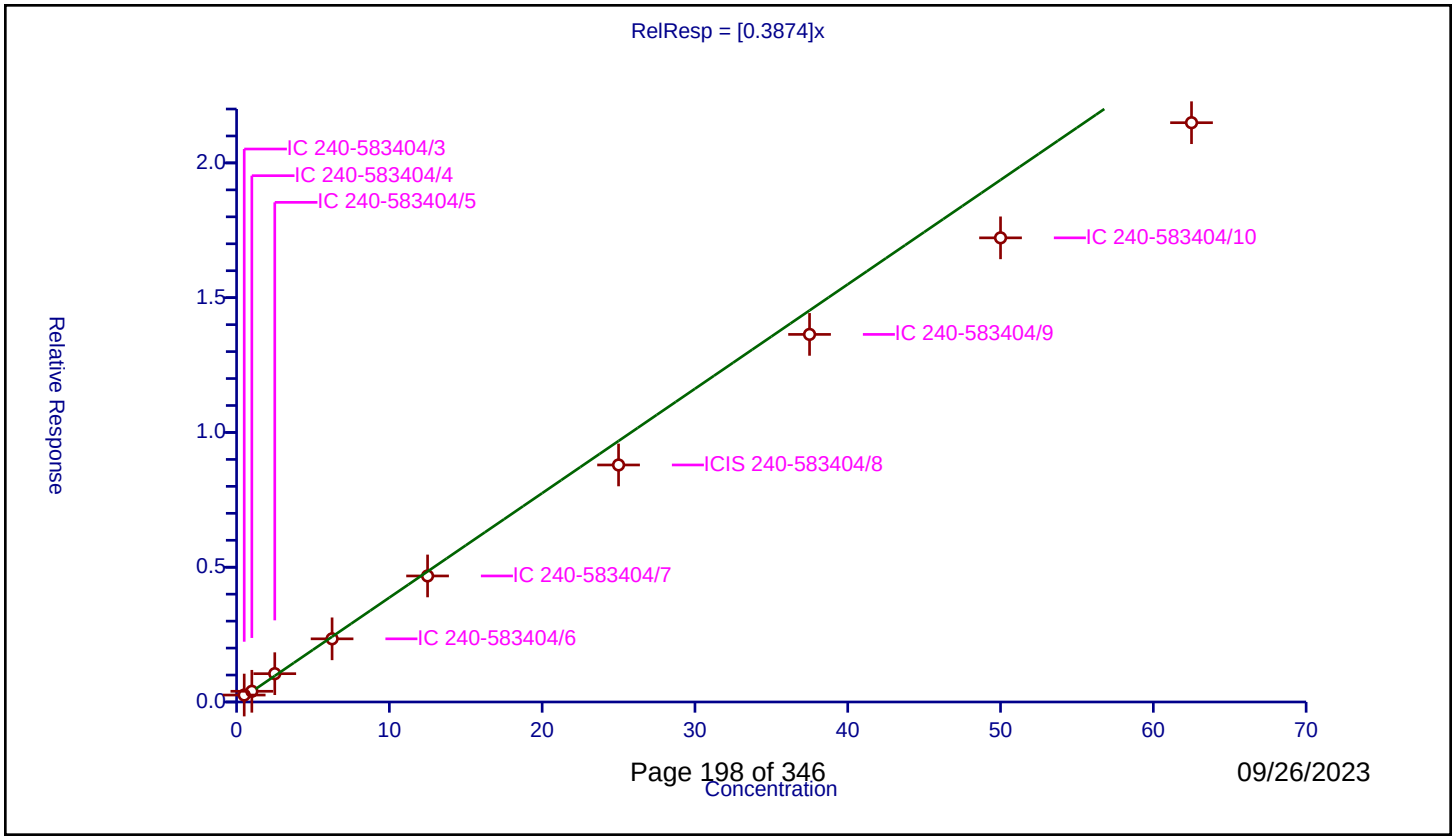
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3874 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 258000 |
| **Relative Standard Error:** | 14.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.971 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.257991 | 25.0 | 519883.0 | 0.515981 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.397357 | 25.0 | 528806.0 | 0.397357 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.050641 | 25.0 | 528011.0 | 0.420256 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.343307 | 25.0 | 536656.0 | 0.374929 | Y |
| 5 | IC 240-583404/7 | 12.5 | 4.67646 | 25.0 | 533582.0 | 0.374117 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 8.793845 | 25.0 | 549461.0 | 0.351754 | Y |
| 7 | IC 240-583404/9 | 37.5 | 13.638302 | 25.0 | 552149.0 | 0.363688 | Y |
| 8 | IC 240-583404/10 | 50.0 | 17.220233 | 25.0 | 558680.0 | 0.344405 | Y |
| 9 | IC 240-583404/11 | 62.5 | 21.492108 | 25.0 | 575595.0 | 0.343874 | Y |



## Calibration / Ethyl ether

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

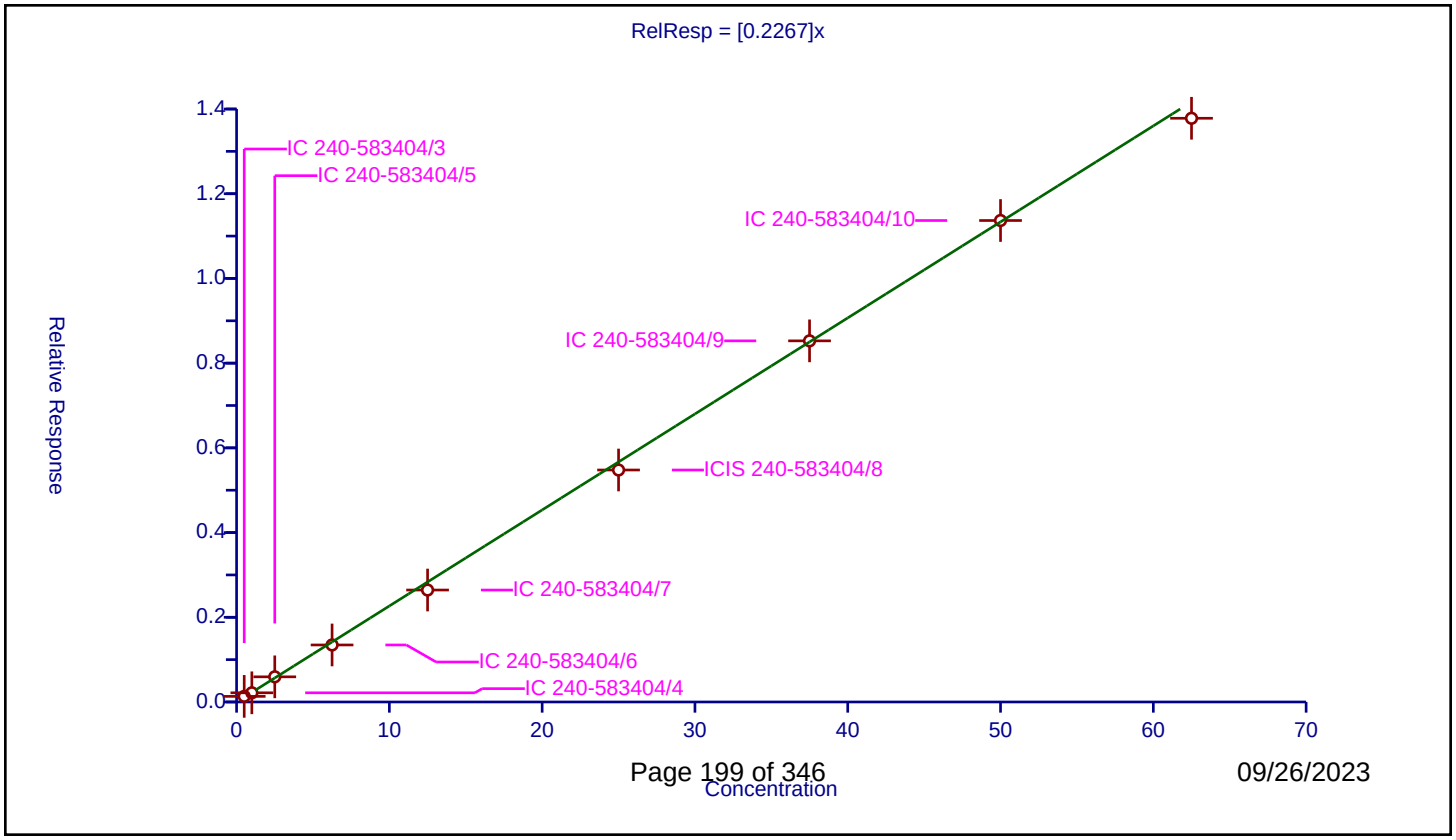
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2267 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 166000 |
| **Relative Standard Error:** | 7.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.132289 | 25.0 | 519883.0 | 0.264579 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.216809 | 25.0 | 528806.0 | 0.216809 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.594116 | 25.0 | 528011.0 | 0.237647 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.34644 | 25.0 | 536656.0 | 0.21543 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.643361 | 25.0 | 533582.0 | 0.211469 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 5.477186 | 25.0 | 549461.0 | 0.219087 | Y |
| 7 | IC 240-583404/9 | 37.5 | 8.526276 | 25.0 | 552149.0 | 0.227367 | Y |
| 8 | IC 240-583404/10 | 50.0 | 11.367912 | 25.0 | 558680.0 | 0.227358 | Y |
| 9 | IC 240-583404/11 | 62.5 | 13.781261 | 25.0 | 575595.0 | 0.2205 | Y |



## Calibration / 1,1,2-Trichloro-1,2,2-trifluoroethane

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

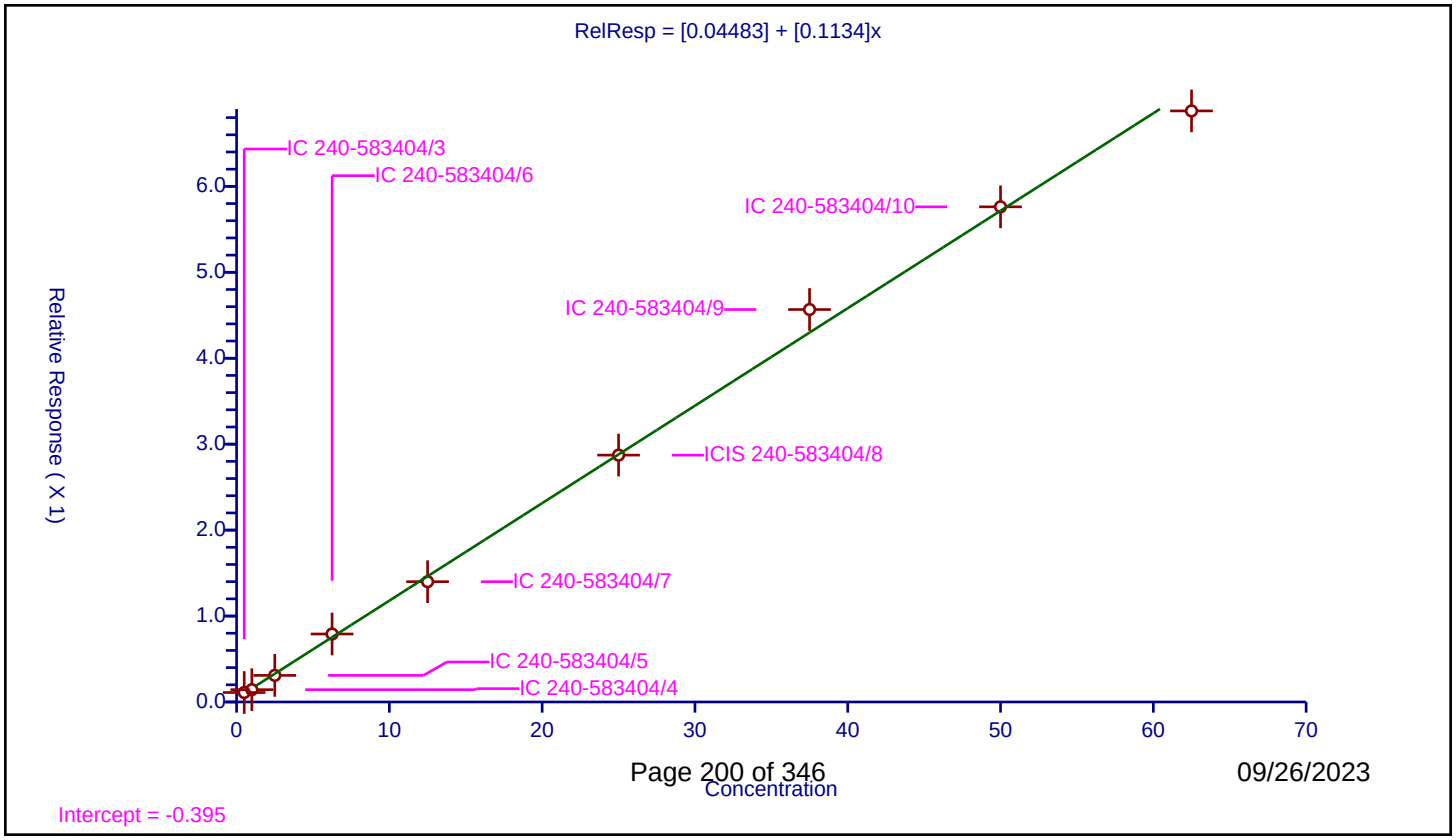
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.04483 |
| **Slope:** | 0.1134 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 90300 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.110458 | 25.0 | 519883.0 | 0.220915 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.143342 | 25.0 | 528806.0 | 0.143342 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.309558 | 25.0 | 528011.0 | 0.123823 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.791242 | 25.0 | 536656.0 | 0.126599 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.399832 | 25.0 | 533582.0 | 0.111987 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 2.872633 | 25.0 | 549461.0 | 0.114905 | Y |
| 7 | IC 240-583404/9 | 37.5 | 4.566928 | 25.0 | 552149.0 | 0.121785 | Y |
| 8 | IC 240-583404/10 | 50.0 | 5.76193 | 25.0 | 558680.0 | 0.115239 | Y |
| 9 | IC 240-583404/11 | 62.5 | 6.877926 | 25.0 | 575595.0 | 0.110047 | Y |



## Calibration / Acrolein

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

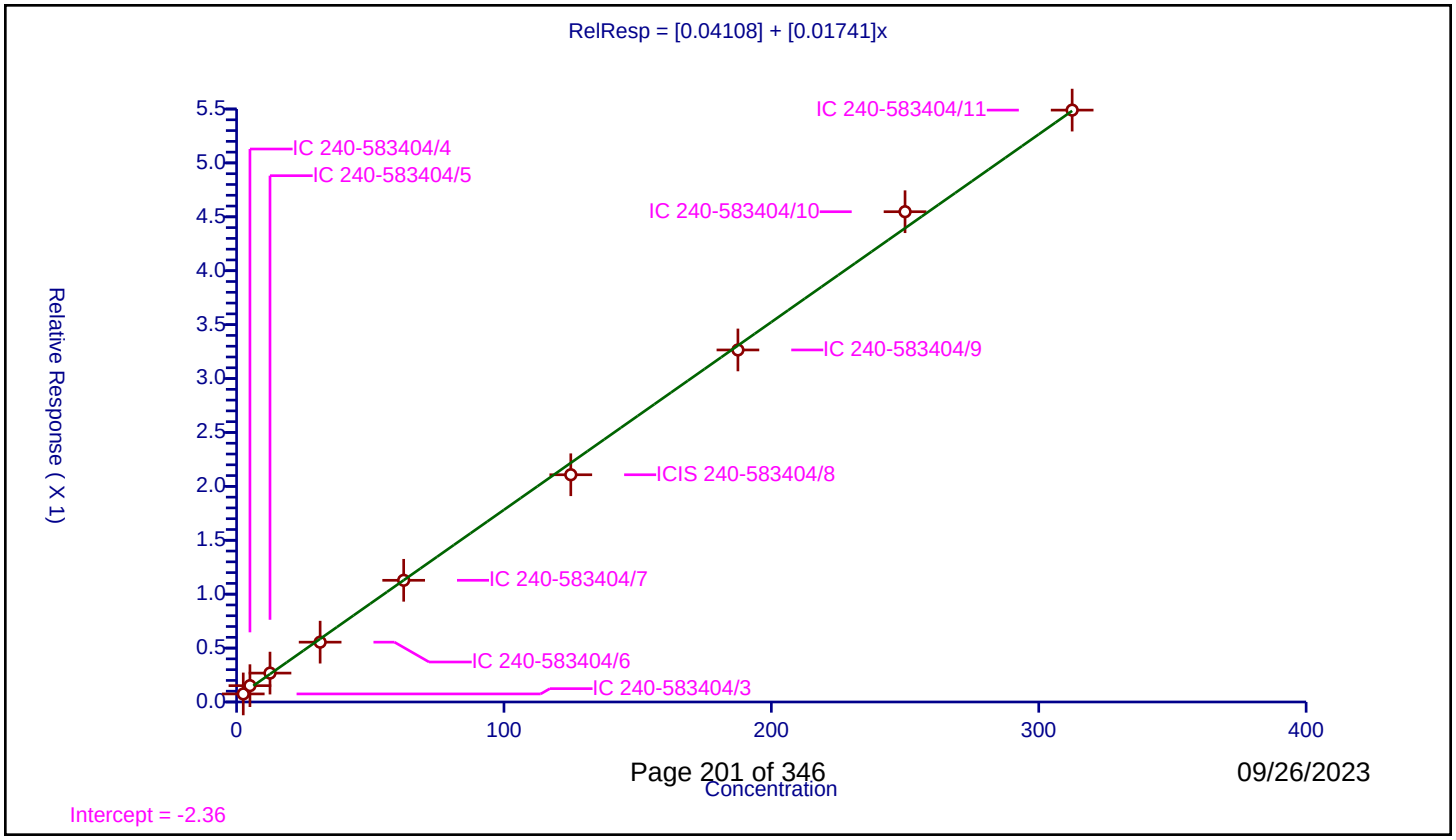
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.04108 |
| **Slope:** | 0.01741 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 70100 |
| **Relative Standard Error:** | 13.7 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 2.5 | 0.074728 | 25.0 | 519883.0 | 0.029891 | Y |
| 2 | IC 240-583404/4 | 5.0 | 0.151473 | 25.0 | 528806.0 | 0.030295 | Y |
| 3 | IC 240-583404/5 | 12.5 | 0.268034 | 25.0 | 528011.0 | 0.021443 | Y |
| 4 | IC 240-583404/6 | 31.25 | 0.554825 | 25.0 | 536656.0 | 0.017754 | Y |
| 5 | IC 240-583404/7 | 62.5 | 1.128646 | 25.0 | 533582.0 | 0.018058 | Y |
| 6 | ICIS 240-583404/8 | 125.0 | 2.107611 | 25.0 | 549461.0 | 0.016861 | Y |
| 7 | IC 240-583404/9 | 187.5 | 3.265242 | 25.0 | 552149.0 | 0.017415 | Y |
| 8 | IC 240-583404/10 | 250.0 | 4.547415 | 25.0 | 558680.0 | 0.01819 | Y |
| 9 | IC 240-583404/11 | 312.5 | 5.489754 | 25.0 | 575595.0 | 0.017567 | Y |



## Calibration / 1,1-Dichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

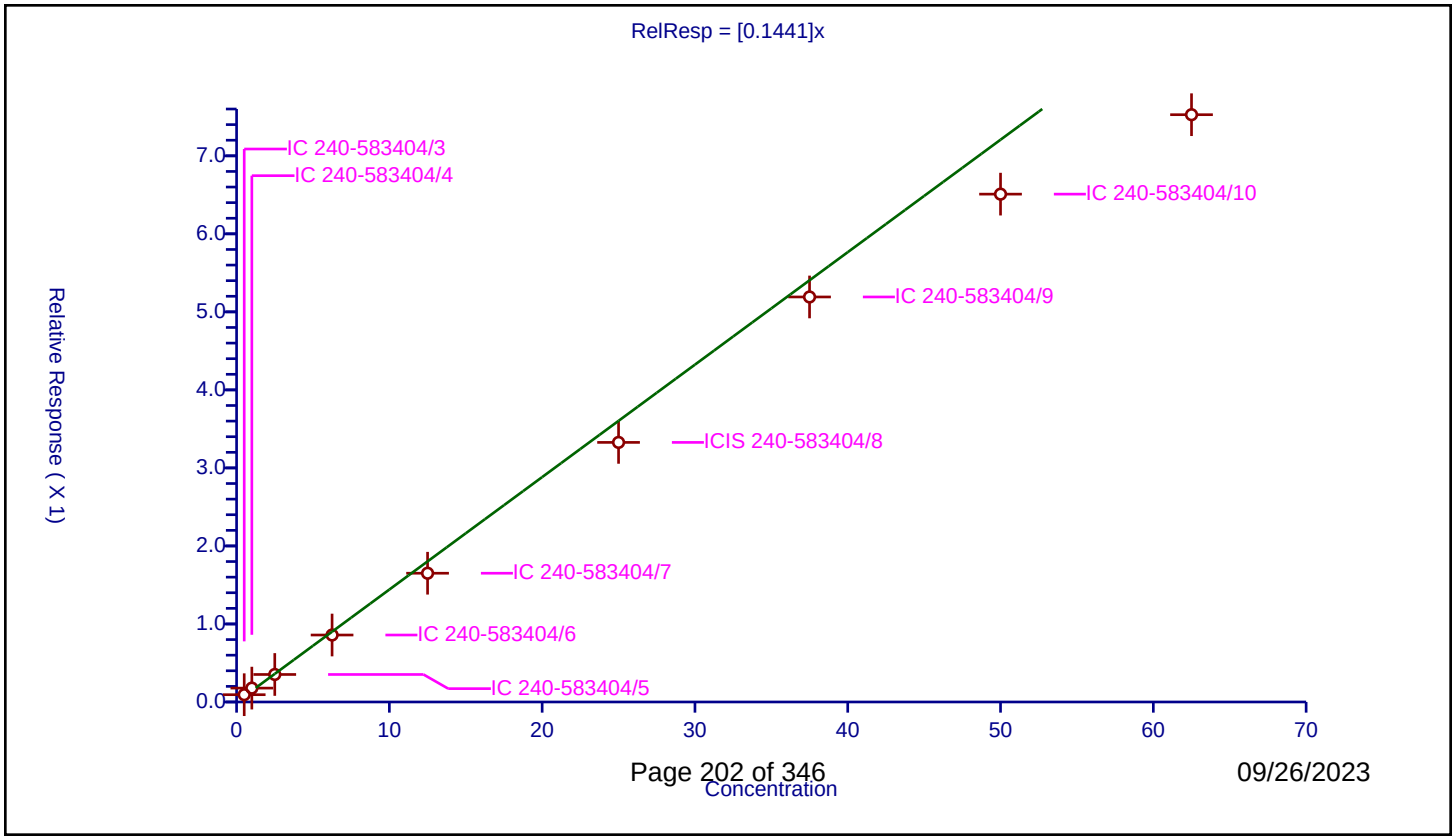
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1441 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 94400 |
| **Relative Standard Error:** | 15.6 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.963 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.093338 | 25.0 | 519883.0 | 0.186677 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.177901 | 25.0 | 528806.0 | 0.177901 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.352644 | 25.0 | 528011.0 | 0.141058 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.858464 | 25.0 | 536656.0 | 0.137354 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.650356 | 25.0 | 533582.0 | 0.132028 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 3.327033 | 25.0 | 549461.0 | 0.133081 | Y |
| 7 | IC 240-583404/9 | 37.5 | 5.19099 | 25.0 | 552149.0 | 0.138426 | Y |
| 8 | IC 240-583404/10 | 50.0 | 6.508914 | 25.0 | 558680.0 | 0.130178 | Y |
| 9 | IC 240-583404/11 | 62.5 | 7.527168 | 25.0 | 575595.0 | 0.120435 | Y |



## Calibration / Acetone

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

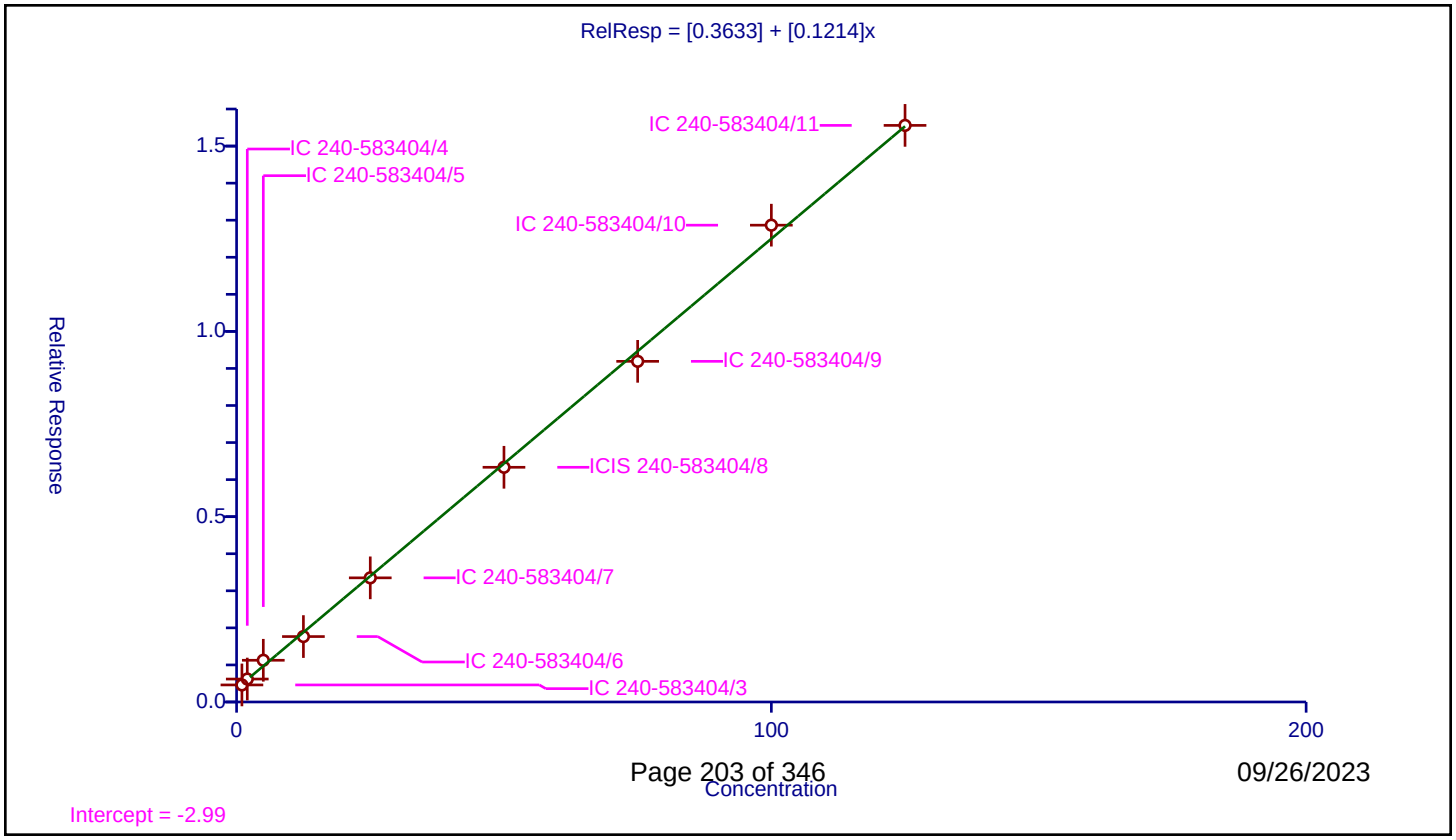
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.3633 |
| **Slope:** | 0.1214 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 200000 |
| **Relative Standard Error:** | 13.0 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 1.0 | 0.459815 | 25.0 | 519883.0 | 0.459815 | Y |
| 2 | IC 240-583404/4 | 2.0 | 0.61932 | 25.0 | 528806.0 | 0.30966 | Y |
| 3 | IC 240-583404/5 | 5.0 | 1.125734 | 25.0 | 528011.0 | 0.225147 | Y |
| 4 | IC 240-583404/6 | 12.5 | 1.76547 | 25.0 | 536656.0 | 0.141238 | Y |
| 5 | IC 240-583404/7 | 25.0 | 3.349532 | 25.0 | 533582.0 | 0.133981 | Y |
| 6 | ICIS 240-583404/8 | 50.0 | 6.332888 | 25.0 | 549461.0 | 0.126658 | Y |
| 7 | IC 240-583404/9 | 75.0 | 9.191767 | 25.0 | 552149.0 | 0.122557 | Y |
| 8 | IC 240-583404/10 | 100.0 | 12.865952 | 25.0 | 558680.0 | 0.12866 | Y |
| 9 | IC 240-583404/11 | 125.0 | 15.558379 | 25.0 | 575595.0 | 0.124467 | Y |



## Calibration / Iodomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

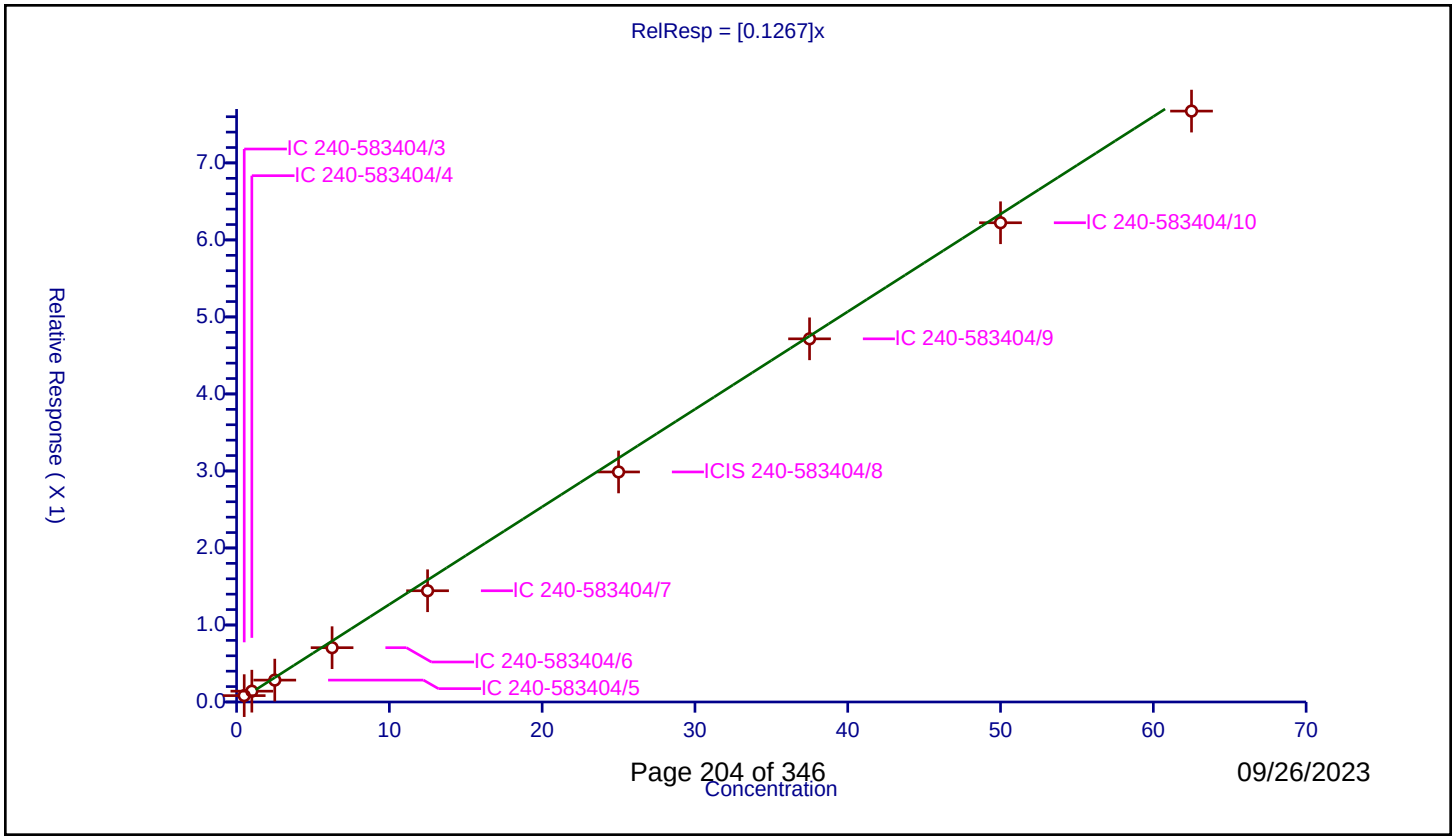
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1267 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 91500 |
| **Relative Standard Error:** | 13.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.974 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.082759 | 25.0 | 519883.0 | 0.165518 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.140316 | 25.0 | 528806.0 | 0.140316 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.28418 | 25.0 | 528011.0 | 0.113672 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.705294 | 25.0 | 536656.0 | 0.112847 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.444389 | 25.0 | 533582.0 | 0.115551 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 2.987155 | 25.0 | 549461.0 | 0.119486 | Y |
| 7 | IC 240-583404/9 | 37.5 | 4.715756 | 25.0 | 552149.0 | 0.125753 | Y |
| 8 | IC 240-583404/10 | 50.0 | 6.22324 | 25.0 | 558680.0 | 0.124465 | Y |
| 9 | IC 240-583404/11 | 62.5 | 7.672973 | 25.0 | 575595.0 | 0.122768 | Y |



## Calibration / Carbon disulfide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

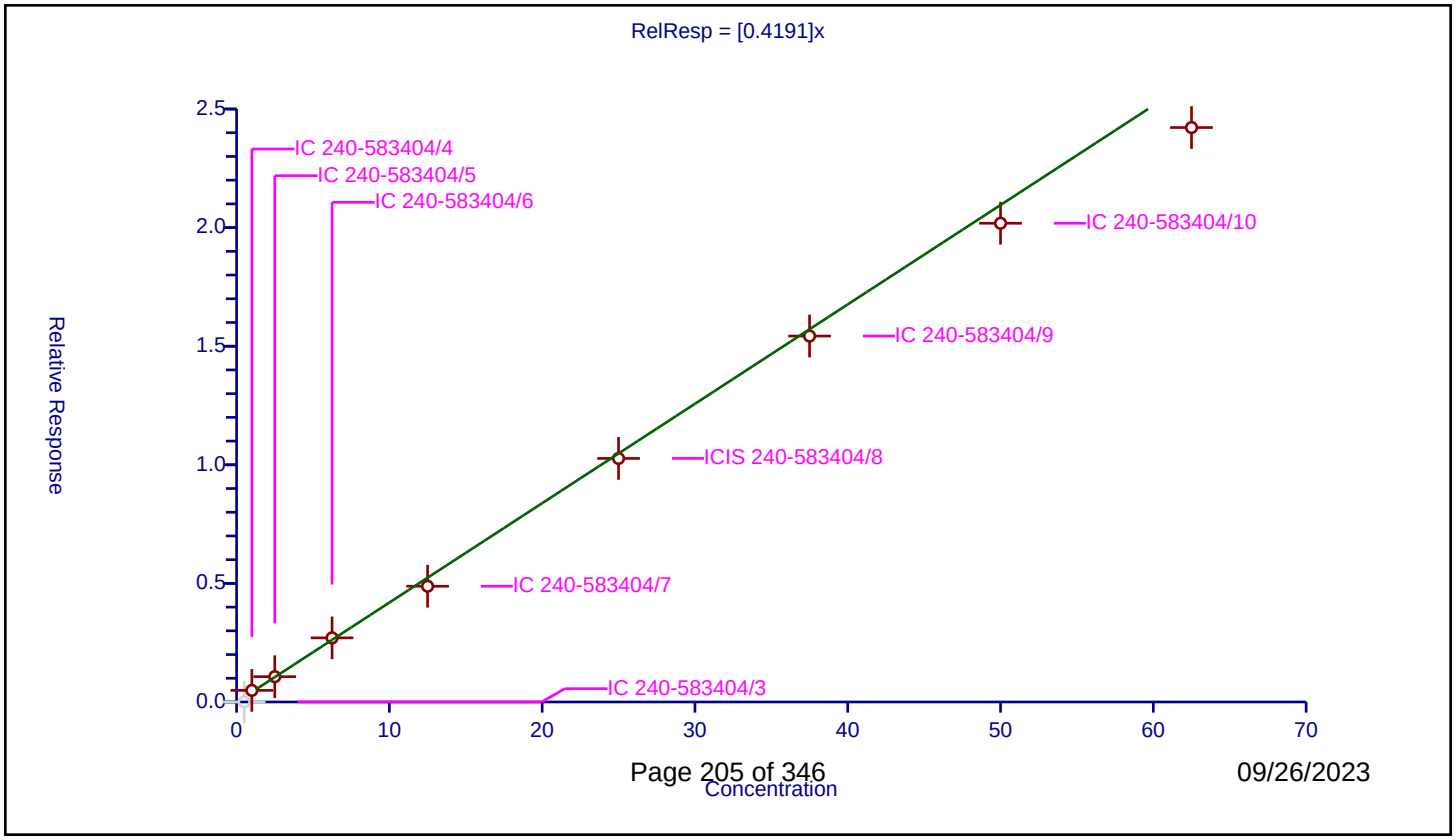
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4191 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 315000 |
| **Relative Standard Error:** | 7.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.489735 | 25.0 | 528806.0 | 0.489735 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.066076 | 25.0 | 528011.0 | 0.426431 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.703594 | 25.0 | 536656.0 | 0.432575 | Y |
| 5 | IC 240-583404/7 | 12.5 | 4.879428 | 25.0 | 533582.0 | 0.390354 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 10.268791 | 25.0 | 549461.0 | 0.410752 | Y |
| 7 | IC 240-583404/9 | 37.5 | 15.427493 | 25.0 | 552149.0 | 0.4114 | Y |
| 8 | IC 240-583404/10 | 50.0 | 20.184139 | 25.0 | 558680.0 | 0.403683 | Y |
| 9 | IC 240-583404/11 | 62.5 | 24.218548 | 25.0 | 575595.0 | 0.387497 | Y |






09/26/2023

## Calibration / 3-Chloro-1-propene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

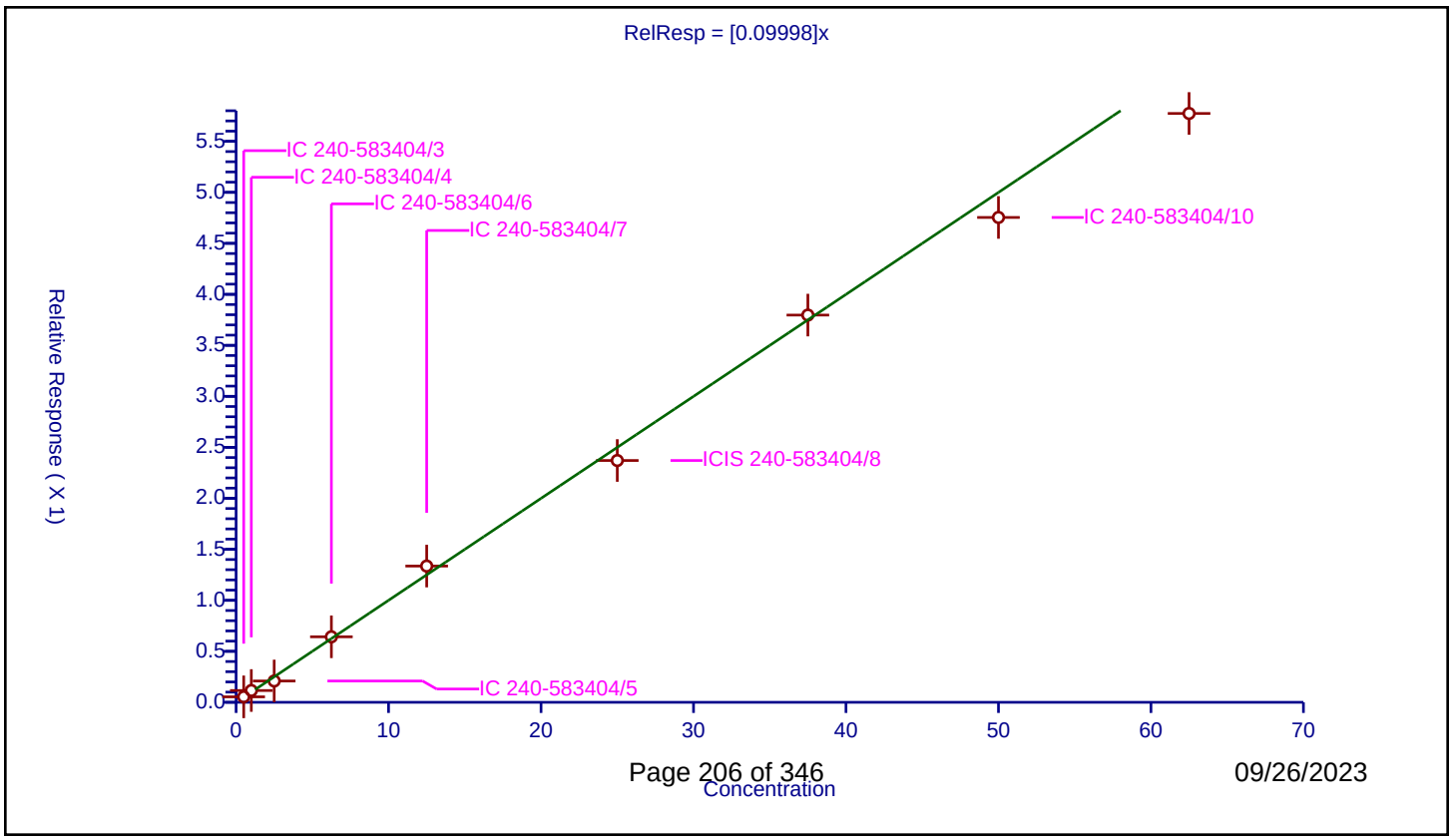
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.09998 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 70500 |
| **Relative Standard Error:** | 9.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.053666 | 25.0 | 519883.0 | 0.107332 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.115732 | 25.0 | 528806.0 | 0.115732 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.209087 | 25.0 | 528011.0 | 0.083635 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.642218 | 25.0 | 536656.0 | 0.102755 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.335783 | 25.0 | 533582.0 | 0.106863 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 2.370823 | 25.0 | 549461.0 | 0.094833 | Y |
| 7 | IC 240-583404/9 | 37.5 | 3.79662 | 25.0 | 552149.0 | 0.101243 | Y |
| 8 | IC 240-583404/10 | 50.0 | 4.753884 | 25.0 | 558680.0 | 0.095078 | Y |
| 9 | IC 240-583404/11 | 62.5 | 5.773461 | 25.0 | 575595.0 | 0.092375 | Y |



## Calibration / Methyl acetate

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

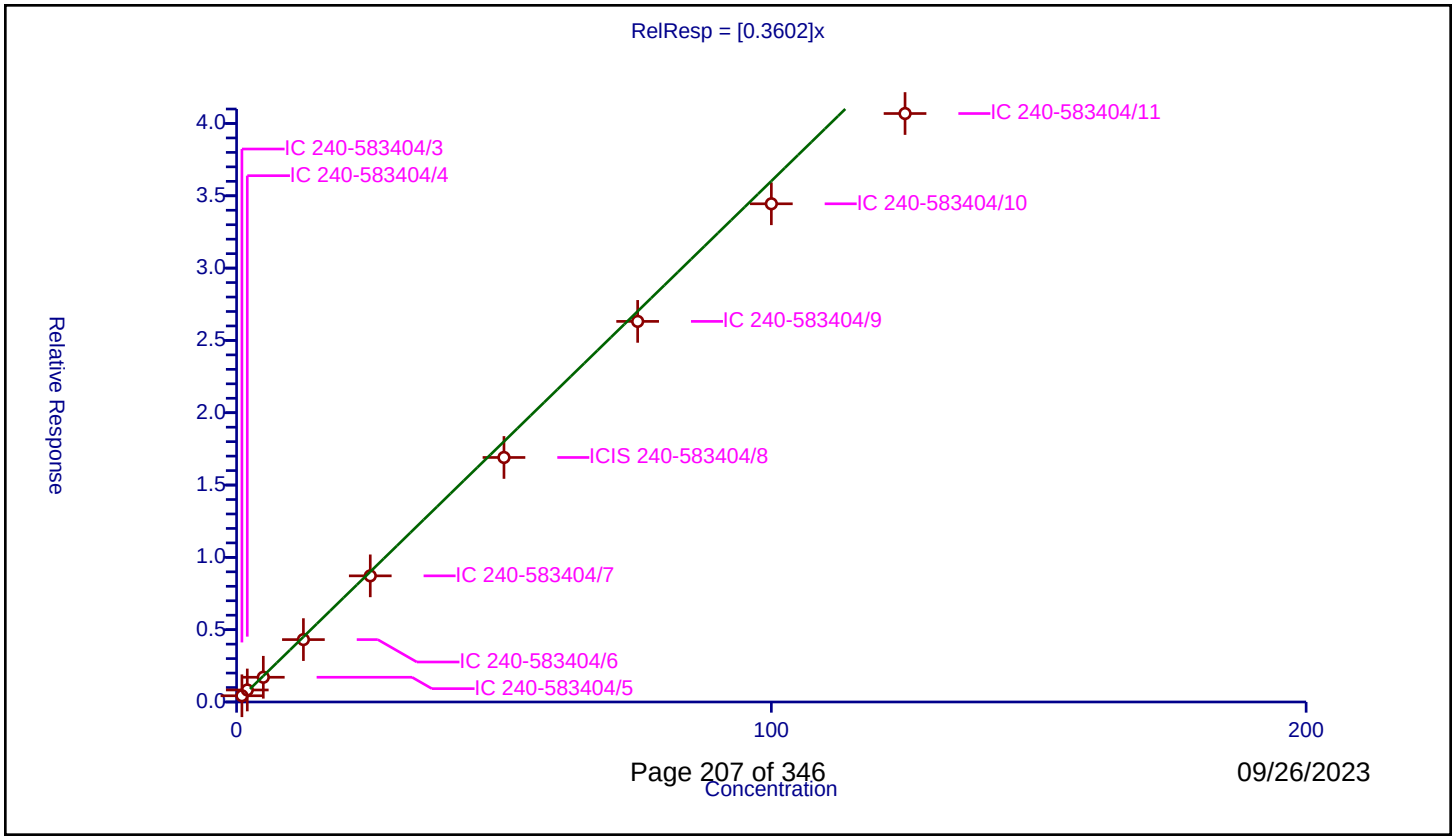
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3602 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 499000 |
| **Relative Standard Error:** | 10.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.985 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 1.0 | 0.431059 | 25.0 | 519883.0 | 0.431059 | Y |
| 2 | IC 240-583404/4 | 2.0 | 0.831259 | 25.0 | 528806.0 | 0.41563 | Y |
| 3 | IC 240-583404/5 | 5.0 | 1.710523 | 25.0 | 528011.0 | 0.342105 | Y |
| 4 | IC 240-583404/6 | 12.5 | 4.31417 | 25.0 | 536656.0 | 0.345134 | Y |
| 5 | IC 240-583404/7 | 25.0 | 8.72223 | 25.0 | 533582.0 | 0.348889 | Y |
| 6 | ICIS 240-583404/8 | 50.0 | 16.907387 | 25.0 | 549461.0 | 0.338148 | Y |
| 7 | IC 240-583404/9 | 75.0 | 26.315587 | 25.0 | 552149.0 | 0.350874 | Y |
| 8 | IC 240-583404/10 | 100.0 | 34.447224 | 25.0 | 558680.0 | 0.344472 | Y |
| 9 | IC 240-583404/11 | 125.0 | 40.687984 | 25.0 | 575595.0 | 0.325504 | Y |



## Calibration / Methylene Chloride

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

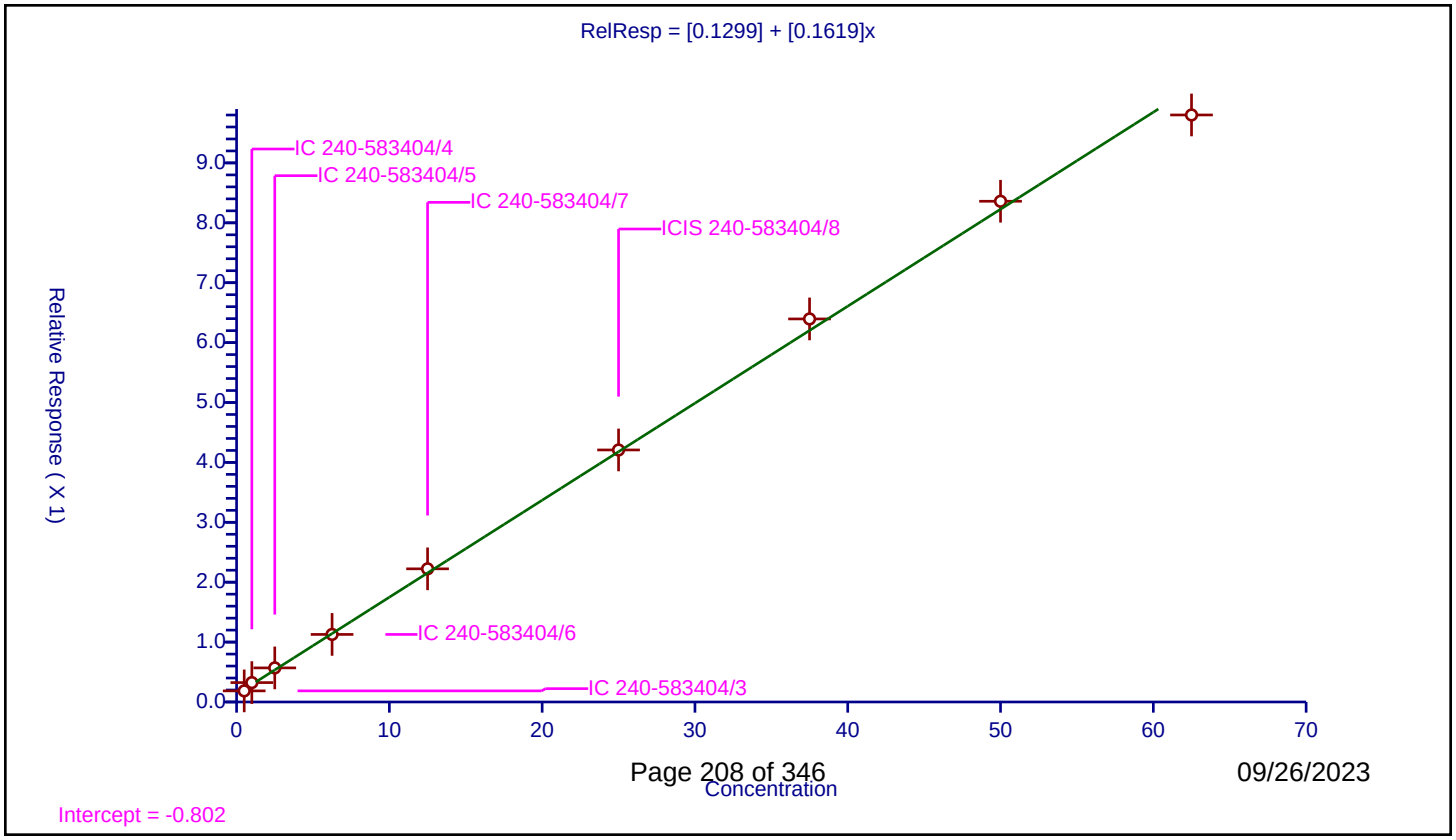
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.1299 |
| **Slope:** | 0.1619 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 129000 |
| **Relative Standard Error:** | 14.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.18533 | 25.0 | 519883.0 | 0.37066 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.324079 | 25.0 | 528806.0 | 0.324079 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.569306 | 25.0 | 528011.0 | 0.227723 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.128097 | 25.0 | 536656.0 | 0.180496 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.22337 | 25.0 | 533582.0 | 0.17787 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.207714 | 25.0 | 549461.0 | 0.168309 | Y |
| 7 | IC 240-583404/9 | 37.5 | 6.395058 | 25.0 | 552149.0 | 0.170535 | Y |
| 8 | IC 240-583404/10 | 50.0 | 8.359929 | 25.0 | 558680.0 | 0.167199 | Y |
| 9 | IC 240-583404/11 | 62.5 | 9.800598 | 25.0 | 575595.0 | 0.15681 | Y |



## Calibration / 2-Methyl-2-propanol

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

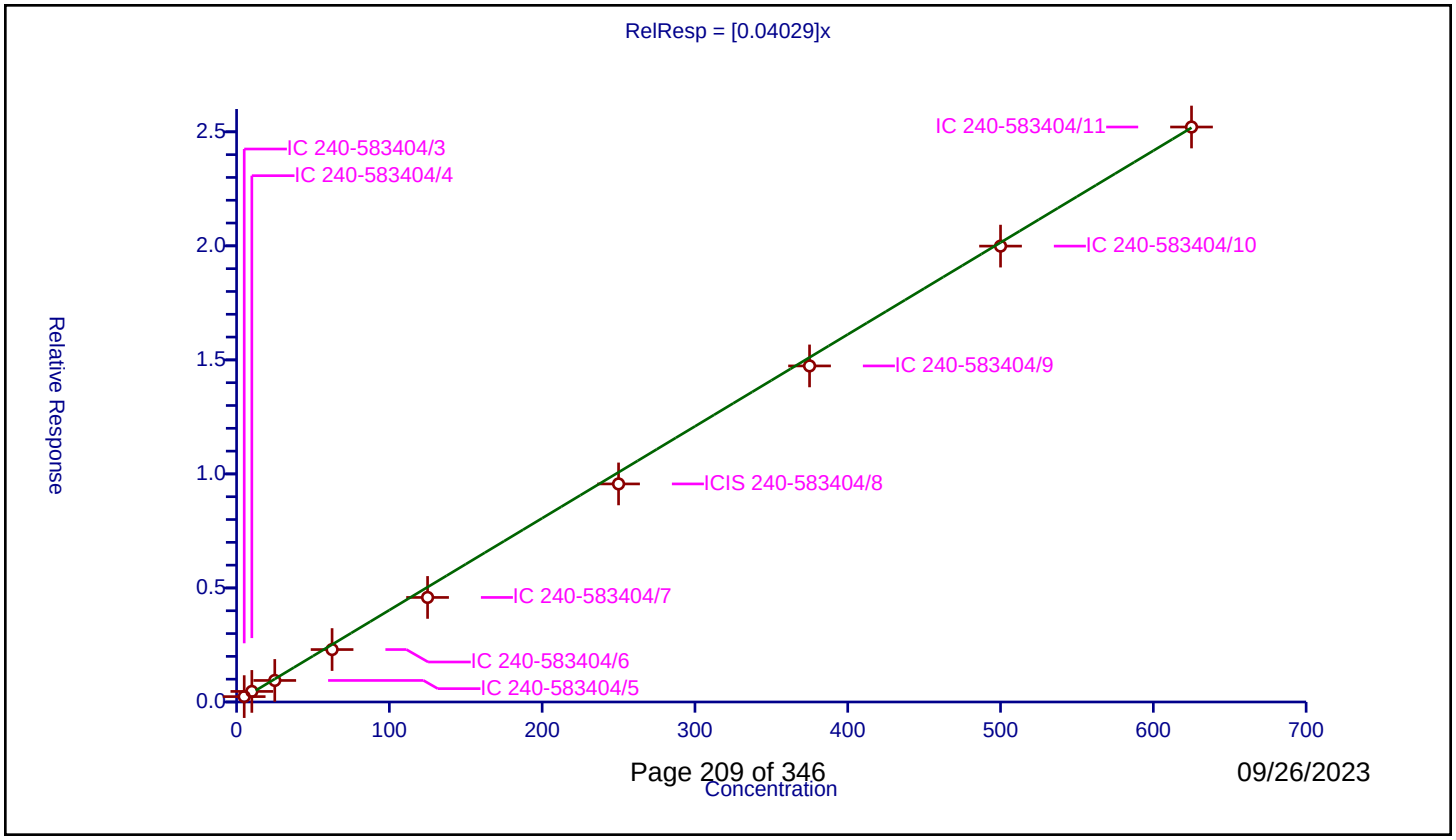
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.04029 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 296000 |
| **Relative Standard Error:** | 9.6 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 5.0 | 0.23587 | 25.0 | 519883.0 | 0.047174 | Y |
| 2 | IC 240-583404/4 | 10.0 | 0.463166 | 25.0 | 528806.0 | 0.046317 | Y |
| 3 | IC 240-583404/5 | 25.0 | 0.944535 | 25.0 | 528011.0 | 0.037781 | Y |
| 4 | IC 240-583404/6 | 62.5 | 2.299192 | 25.0 | 536656.0 | 0.036787 | Y |
| 5 | IC 240-583404/7 | 125.0 | 4.584534 | 25.0 | 533582.0 | 0.036676 | Y |
| 6 | ICIS 240-583404/8 | 250.0 | 9.561598 | 25.0 | 549461.0 | 0.038246 | Y |
| 7 | IC 240-583404/9 | 375.0 | 14.735832 | 25.0 | 552149.0 | 0.039296 | Y |
| 8 | IC 240-583404/10 | 500.0 | 19.988723 | 25.0 | 558680.0 | 0.039977 | Y |
| 9 | IC 240-583404/11 | 625.0 | 25.210261 | 25.0 | 575595.0 | 0.040336 | Y |



## Calibration / Methyl tert-butyl ether

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

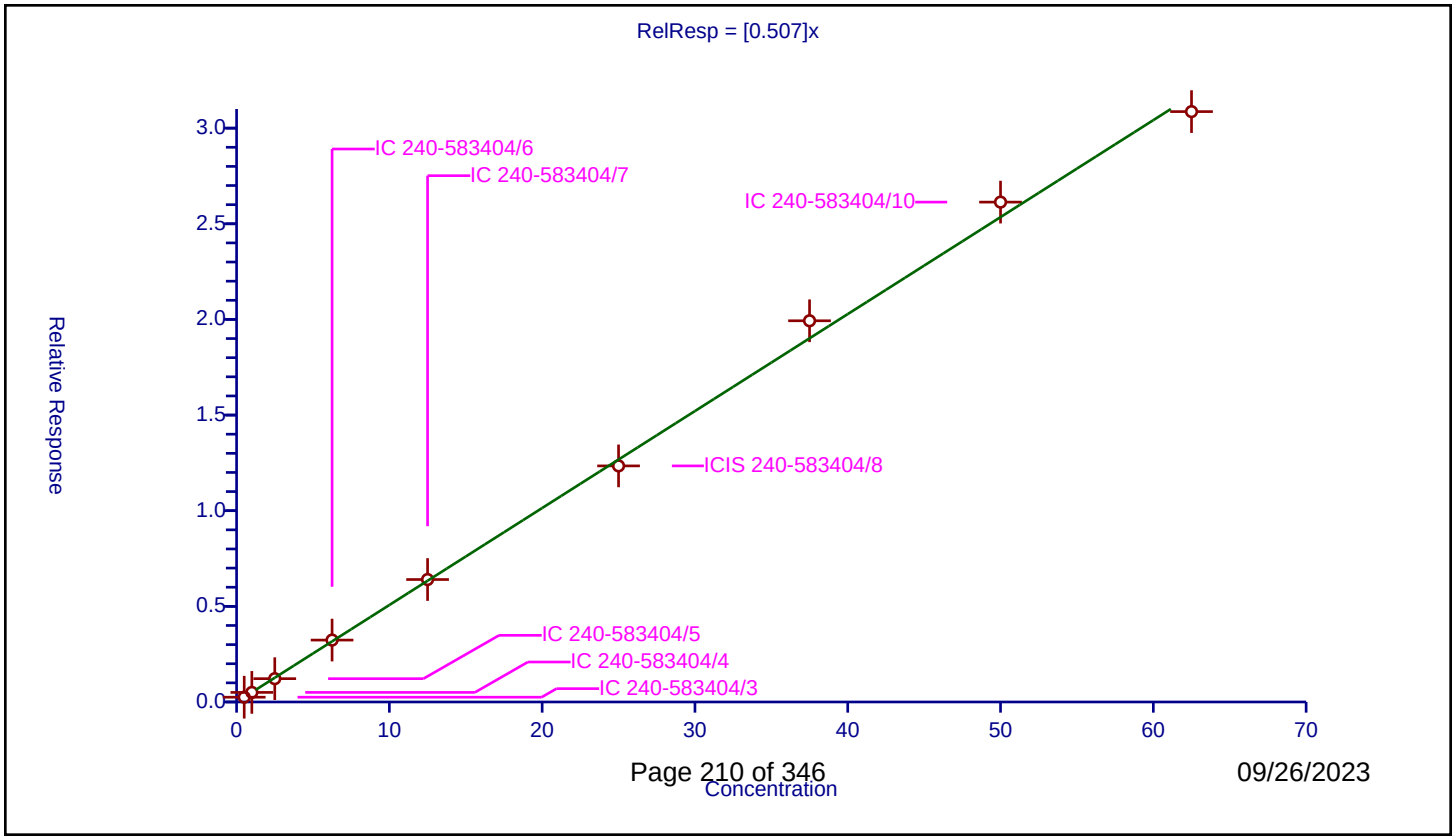
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.507 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 377000 |
| **Relative Standard Error:** | 2.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.250922 | 25.0 | 519883.0 | 0.501844 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.501602 | 25.0 | 528806.0 | 0.501602 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.218961 | 25.0 | 528011.0 | 0.487585 | Y |
| 4 | IC 240-583404/6 | 6.25 | 3.236803 | 25.0 | 536656.0 | 0.517889 | Y |
| 5 | IC 240-583404/7 | 12.5 | 6.402812 | 25.0 | 533582.0 | 0.512225 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 12.342596 | 25.0 | 549461.0 | 0.493704 | Y |
| 7 | IC 240-583404/9 | 37.5 | 19.92895 | 25.0 | 552149.0 | 0.531439 | Y |
| 8 | IC 240-583404/10 | 50.0 | 26.132804 | 25.0 | 558680.0 | 0.522656 | Y |
| 9 | IC 240-583404/11 | 62.5 | 30.86428 | 25.0 | 575595.0 | 0.493828 | Y |



## Calibration / trans-1,2-Dichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

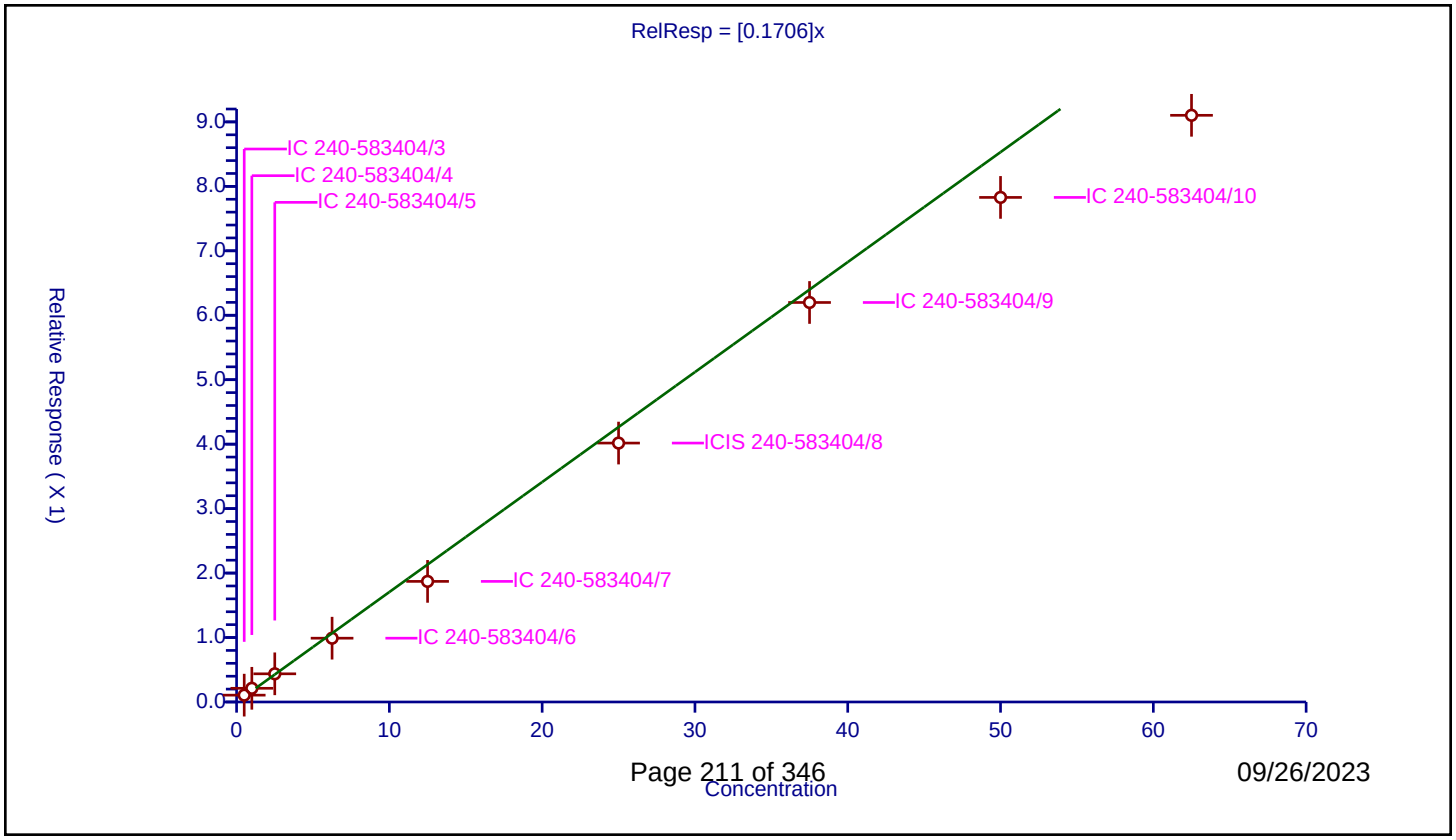
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1706 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 114000 |
| **Relative Standard Error:** | 14.7 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.968 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.106082 | 25.0 | 519883.0 | 0.212163 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.212318 | 25.0 | 528806.0 | 0.212318 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.437207 | 25.0 | 528011.0 | 0.174883 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.989694 | 25.0 | 536656.0 | 0.158351 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.871174 | 25.0 | 533582.0 | 0.149694 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.01721 | 25.0 | 549461.0 | 0.160688 | Y |
| 7 | IC 240-583404/9 | 37.5 | 6.198236 | 25.0 | 552149.0 | 0.165286 | Y |
| 8 | IC 240-583404/10 | 50.0 | 7.828319 | 25.0 | 558680.0 | 0.156566 | Y |
| 9 | IC 240-583404/11 | 62.5 | 9.102233 | 25.0 | 575595.0 | 0.145636 | Y |



## Calibration / Acrylonitrile

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

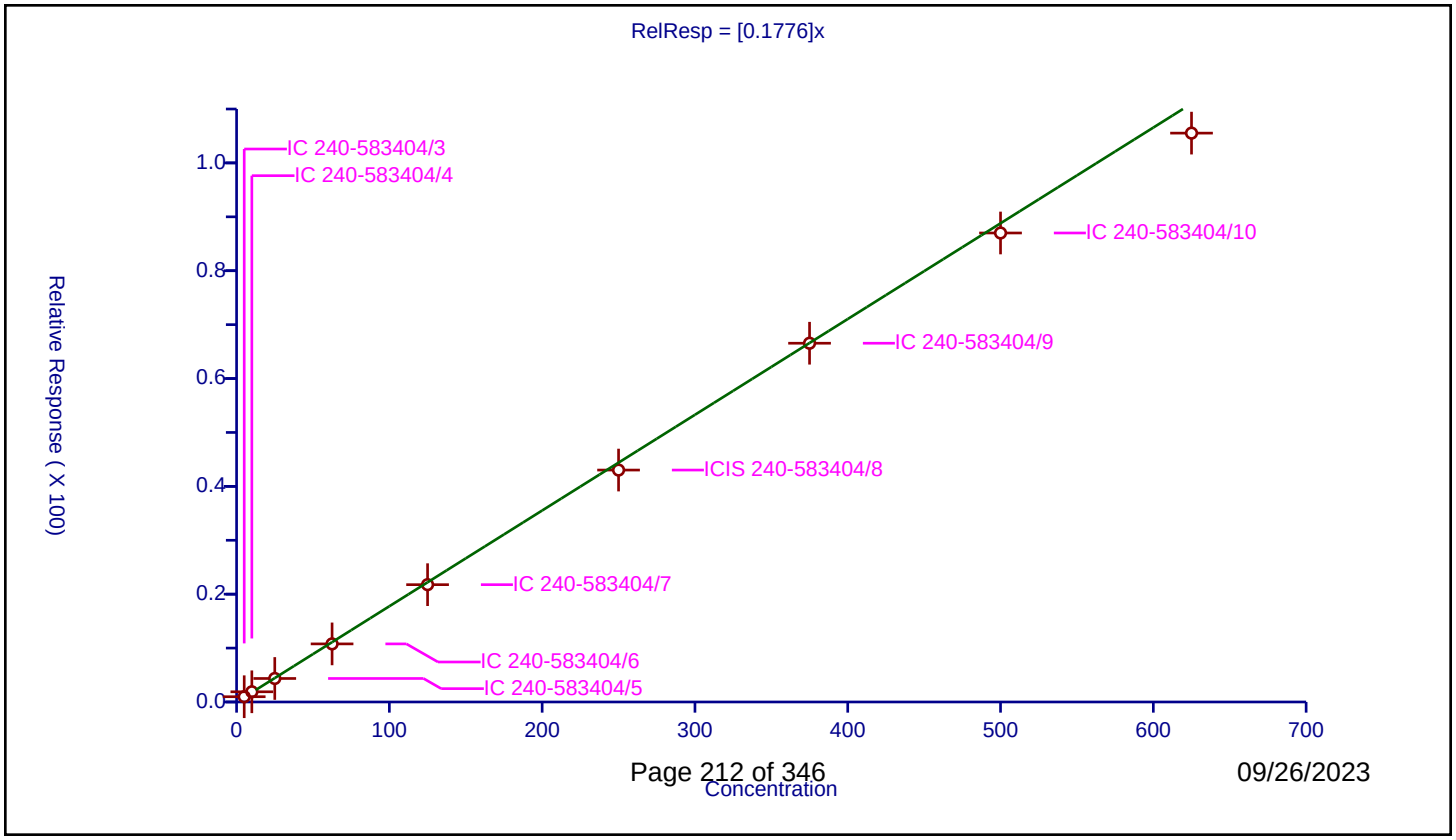
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1776 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 1280000 |
| **Relative Standard Error:** | 5.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 5.0 | 0.977864 | 25.0 | 519883.0 | 0.195573 | Y |
| 2 | IC 240-583404/4 | 10.0 | 1.894315 | 25.0 | 528806.0 | 0.189431 | Y |
| 3 | IC 240-583404/5 | 25.0 | 4.359379 | 25.0 | 528011.0 | 0.174375 | Y |
| 4 | IC 240-583404/6 | 62.5 | 10.778739 | 25.0 | 536656.0 | 0.17246 | Y |
| 5 | IC 240-583404/7 | 125.0 | 21.76568 | 25.0 | 533582.0 | 0.174125 | Y |
| 6 | ICIS 240-583404/8 | 250.0 | 43.025711 | 25.0 | 549461.0 | 0.172103 | Y |
| 7 | IC 240-583404/9 | 375.0 | 66.550198 | 25.0 | 552149.0 | 0.177467 | Y |
| 8 | IC 240-583404/10 | 500.0 | 87.002354 | 25.0 | 558680.0 | 0.174005 | Y |
| 9 | IC 240-583404/11 | 625.0 | 105.526672 | 25.0 | 575595.0 | 0.168843 | Y |



## Calibration / Hexane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

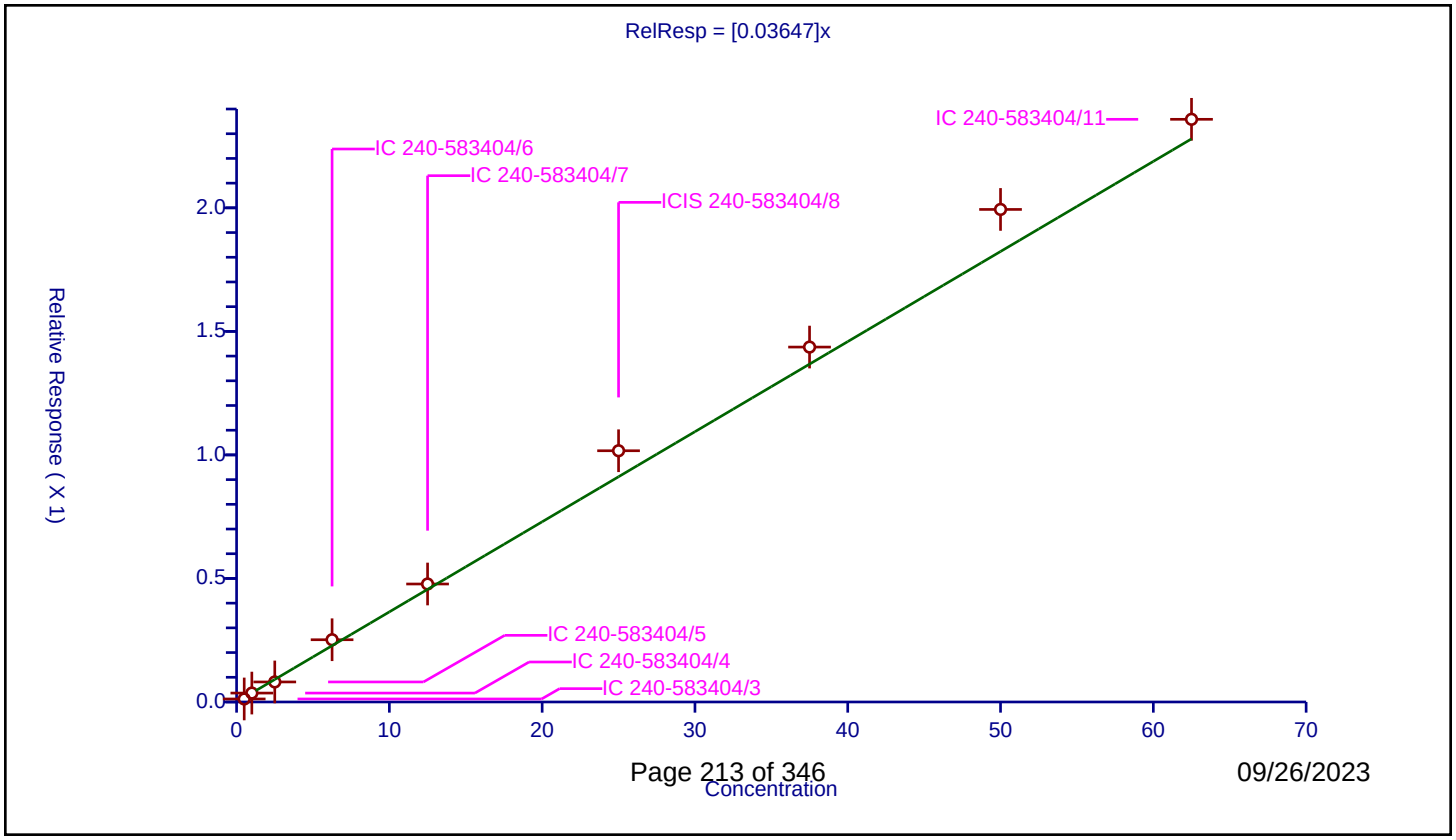
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.03647 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 28700 |
| **Relative Standard Error:** | 14.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.978 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.012262 | 25.0 | 519883.0 | 0.024525 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.036119 | 25.0 | 528806.0 | 0.036119 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.081154 | 25.0 | 528011.0 | 0.032461 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.25193 | 25.0 | 536656.0 | 0.040309 | Y |
| 5 | IC 240-583404/7 | 12.5 | 0.477527 | 25.0 | 533582.0 | 0.038202 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 1.01686 | 25.0 | 549461.0 | 0.040674 | Y |
| 7 | IC 240-583404/9 | 37.5 | 1.436478 | 25.0 | 552149.0 | 0.038306 | Y |
| 8 | IC 240-583404/10 | 50.0 | 1.993583 | 25.0 | 558680.0 | 0.039872 | Y |
| 9 | IC 240-583404/11 | 62.5 | 2.358299 | 25.0 | 575595.0 | 0.037733 | Y |






09/26/2023

## Calibration / 1,1-Dichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

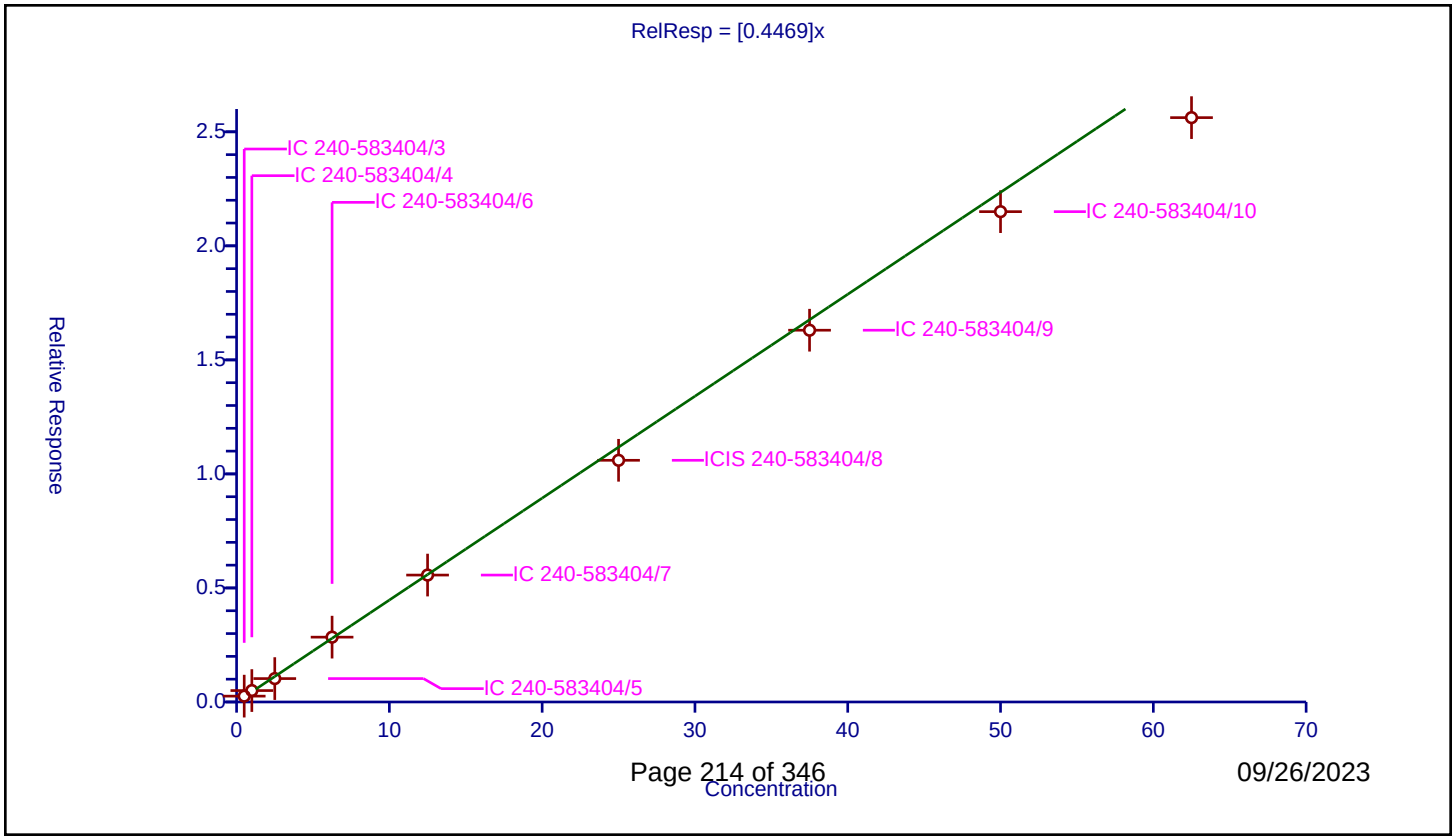
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4469 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 312000 |
| **Relative Standard Error:** | 8.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.25626 | 25.0 | 519883.0 | 0.512519 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.500467 | 25.0 | 528806.0 | 0.500467 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.026304 | 25.0 | 528011.0 | 0.410522 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.843488 | 25.0 | 536656.0 | 0.454958 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.565405 | 25.0 | 533582.0 | 0.445232 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 10.597249 | 25.0 | 549461.0 | 0.42389 | Y |
| 7 | IC 240-583404/9 | 37.5 | 16.301442 | 25.0 | 552149.0 | 0.434705 | Y |
| 8 | IC 240-583404/10 | 50.0 | 21.499024 | 25.0 | 558680.0 | 0.42998 | Y |
| 9 | IC 240-583404/11 | 62.5 | 25.622182 | 25.0 | 575595.0 | 0.409955 | Y |



## Calibration / Vinyl acetate

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

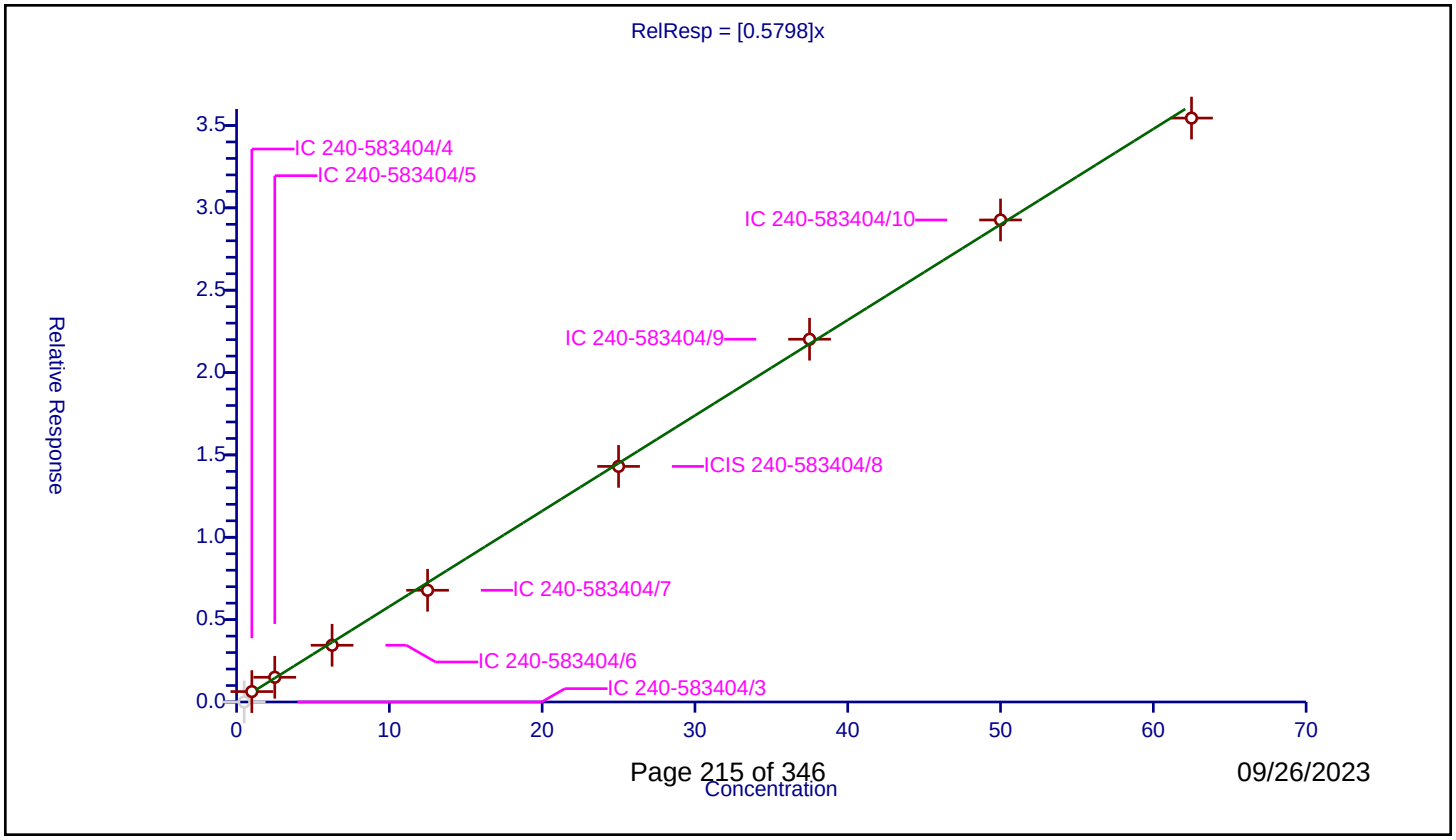
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5798 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 456000 |
| **Relative Standard Error:** | 4.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.632699 | 25.0 | 528806.0 | 0.632699 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.500205 | 25.0 | 528011.0 | 0.600082 | Y |
| 4 | IC 240-583404/6 | 6.25 | 3.444245 | 25.0 | 536656.0 | 0.551079 | Y |
| 5 | IC 240-583404/7 | 12.5 | 6.782744 | 25.0 | 533582.0 | 0.54262 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 14.30197 | 25.0 | 549461.0 | 0.572079 | Y |
| 7 | IC 240-583404/9 | 37.5 | 22.022996 | 25.0 | 552149.0 | 0.58728 | Y |
| 8 | IC 240-583404/10 | 50.0 | 29.262816 | 25.0 | 558680.0 | 0.585256 | Y |
| 9 | IC 240-583404/11 | 62.5 | 35.449622 | 25.0 | 575595.0 | 0.567194 | Y |



## Calibration / 2,2-Dichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

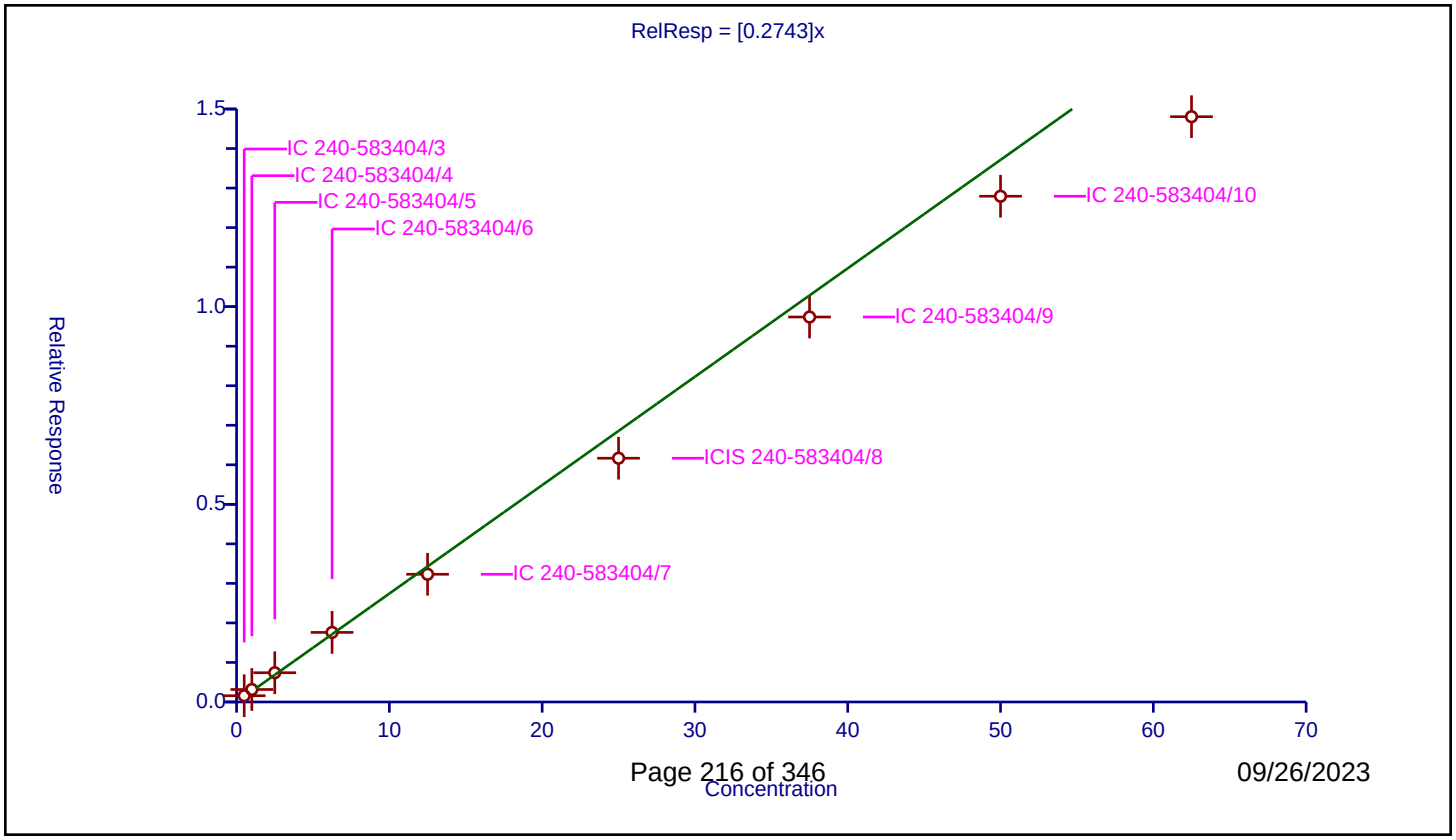
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2743 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 183000 |
| **Relative Standard Error:** | 10.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.158401 | 25.0 | 519883.0 | 0.316802 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.316231 | 25.0 | 528806.0 | 0.316231 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.740136 | 25.0 | 528011.0 | 0.296054 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.760299 | 25.0 | 536656.0 | 0.281648 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.231087 | 25.0 | 533582.0 | 0.258487 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 6.166771 | 25.0 | 549461.0 | 0.246671 | Y |
| 7 | IC 240-583404/9 | 37.5 | 9.738495 | 25.0 | 552149.0 | 0.259693 | Y |
| 8 | IC 240-583404/10 | 50.0 | 12.793415 | 25.0 | 558680.0 | 0.255868 | Y |
| 9 | IC 240-583404/11 | 62.5 | 14.805983 | 25.0 | 575595.0 | 0.236896 | Y |



## Calibration / cis-1,2-Dichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

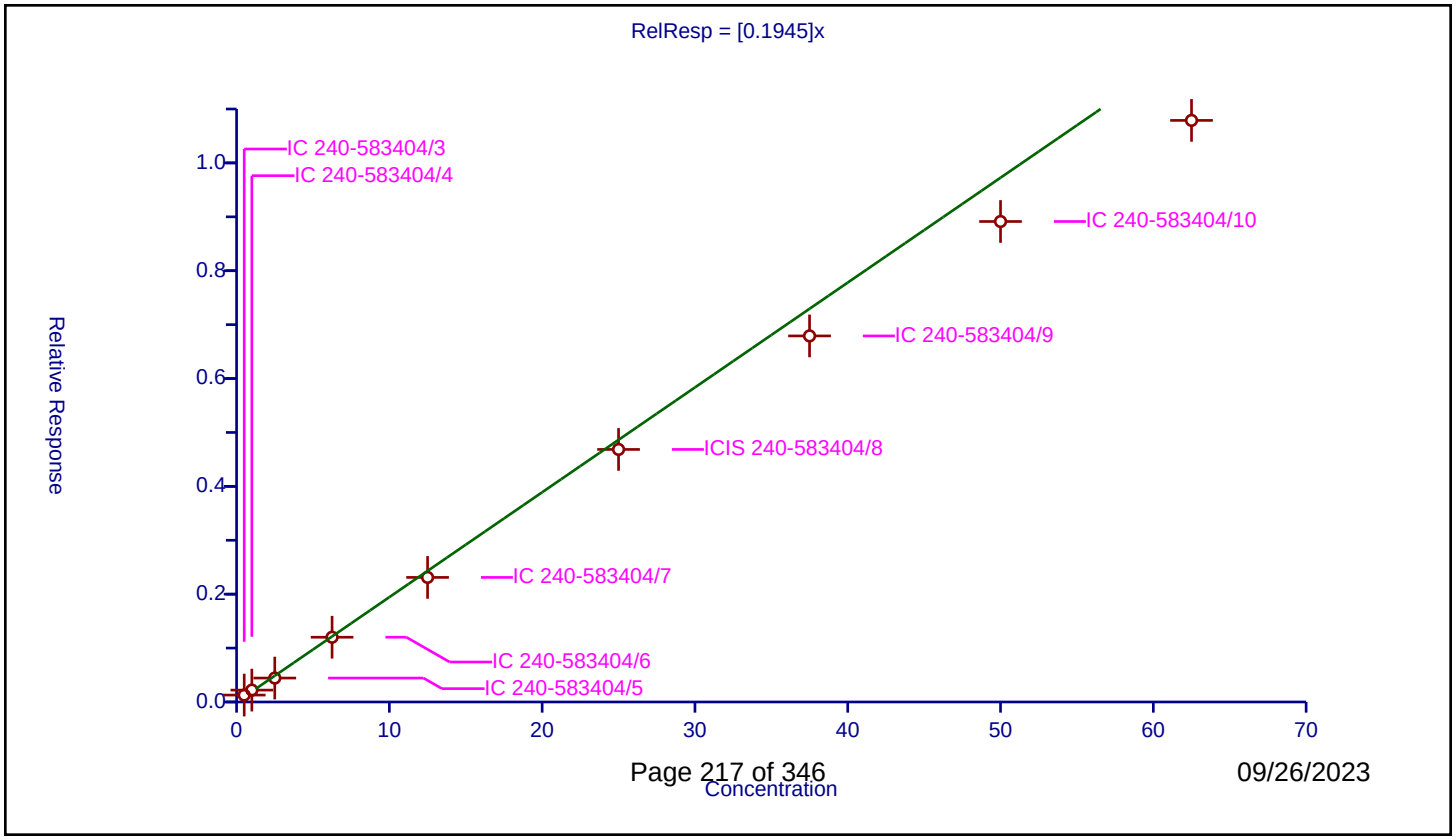
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1945 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 131000 |
| **Relative Standard Error:** | 13.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.971 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.128154 | 25.0 | 519883.0 | 0.256308 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.220308 | 25.0 | 528806.0 | 0.220308 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.443883 | 25.0 | 528011.0 | 0.177553 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.201375 | 25.0 | 536656.0 | 0.19222 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.310751 | 25.0 | 533582.0 | 0.18486 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.684955 | 25.0 | 549461.0 | 0.187398 | Y |
| 7 | IC 240-583404/9 | 37.5 | 6.790649 | 25.0 | 552149.0 | 0.181084 | Y |
| 8 | IC 240-583404/10 | 50.0 | 8.913287 | 25.0 | 558680.0 | 0.178266 | Y |
| 9 | IC 240-583404/11 | 62.5 | 10.788966 | 25.0 | 575595.0 | 0.172623 | Y |



## Calibration / 2-Butanone (MEK)

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

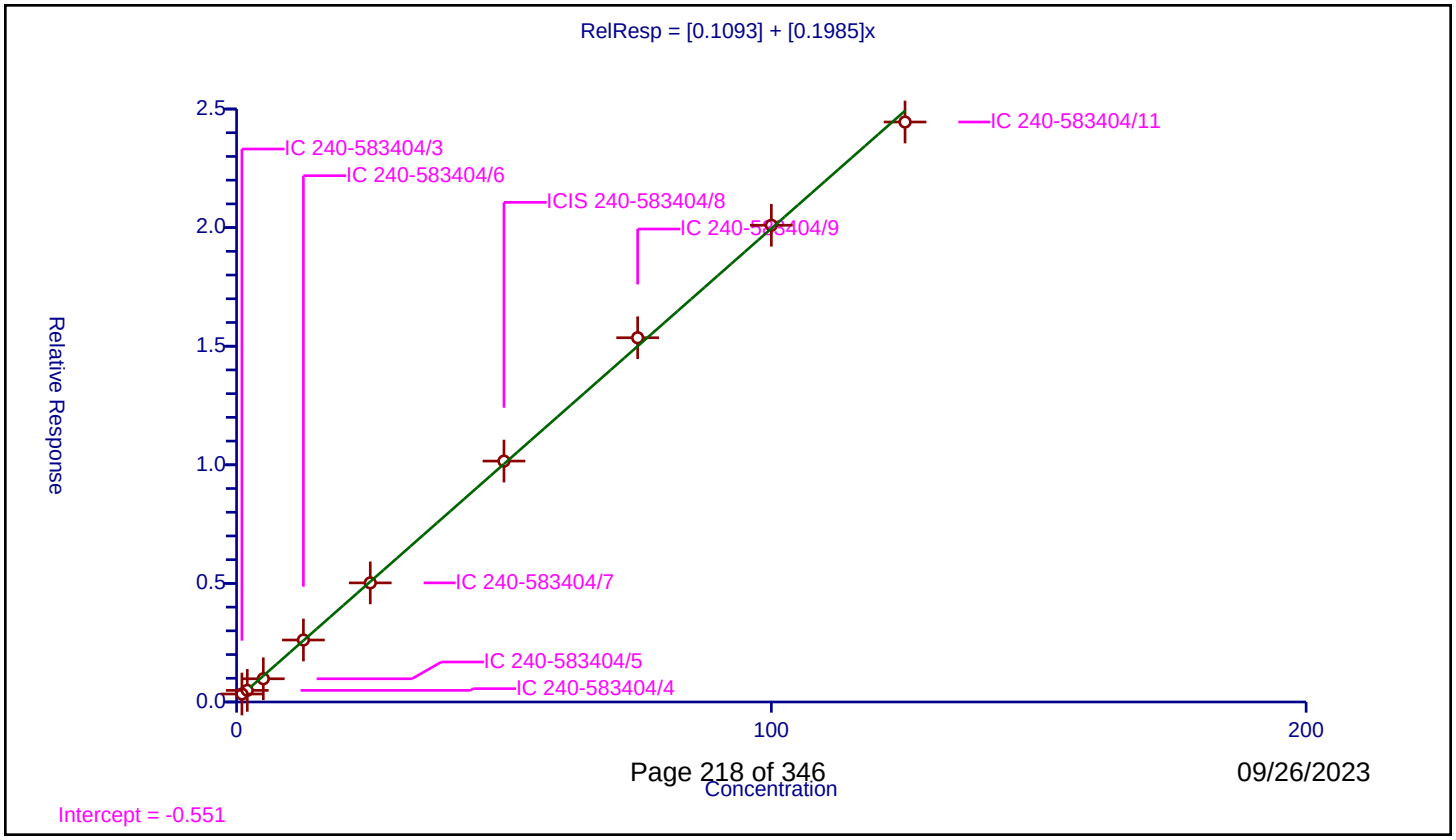
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.1093 |
| **Slope:** | 0.1985 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 316000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 1.0 | 0.336662 | 25.0 | 519883.0 | 0.336662 | Y |
| 2 | IC 240-583404/4 | 2.0 | 0.489121 | 25.0 | 528806.0 | 0.24456 | Y |
| 3 | IC 240-583404/5 | 5.0 | 0.978578 | 25.0 | 528011.0 | 0.195716 | Y |
| 4 | IC 240-583404/6 | 12.5 | 2.613173 | 25.0 | 536656.0 | 0.209054 | Y |
| 5 | IC 240-583404/7 | 25.0 | 5.021909 | 25.0 | 533582.0 | 0.200876 | Y |
| 6 | ICIS 240-583404/8 | 50.0 | 10.157318 | 25.0 | 549461.0 | 0.203146 | Y |
| 7 | IC 240-583404/9 | 75.0 | 15.356498 | 25.0 | 552149.0 | 0.204753 | Y |
| 8 | IC 240-583404/10 | 100.0 | 20.098804 | 25.0 | 558680.0 | 0.200988 | Y |
| 9 | IC 240-583404/11 | 125.0 | 24.452827 | 25.0 | 575595.0 | 0.195623 | Y |



## Calibration / Chlorobromomethane

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

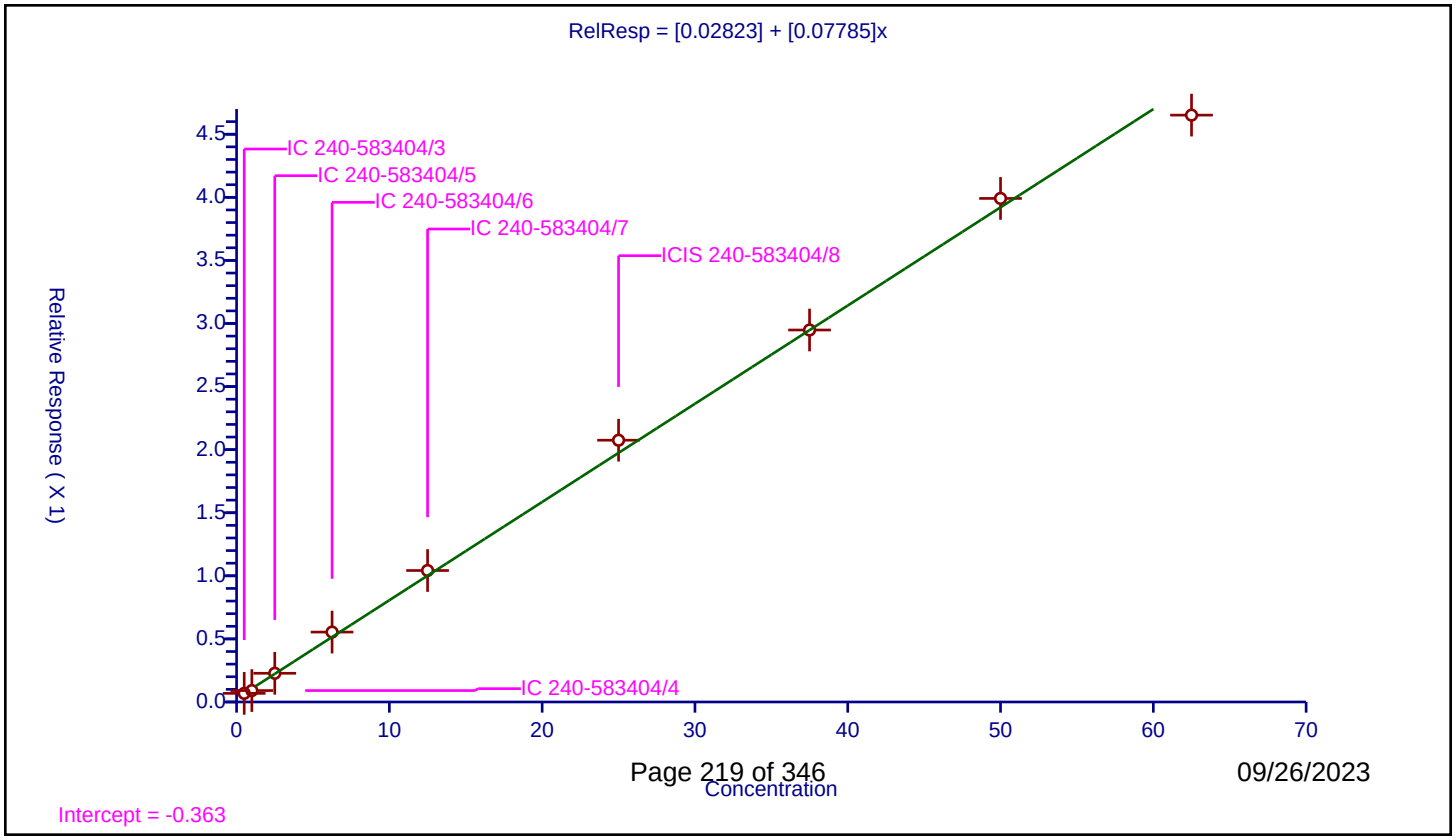
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.02823 |
| **Slope:** | 0.07785 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 61400 |
| **Relative Standard Error:** | 8.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.068429 | 25.0 | 519883.0 | 0.136858 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.090581 | 25.0 | 528806.0 | 0.090581 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.227457 | 25.0 | 528011.0 | 0.090983 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.554033 | 25.0 | 536656.0 | 0.088645 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.042155 | 25.0 | 533582.0 | 0.083372 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 2.074806 | 25.0 | 549461.0 | 0.082992 | Y |
| 7 | IC 240-583404/9 | 37.5 | 2.948344 | 25.0 | 552149.0 | 0.078622 | Y |
| 8 | IC 240-583404/10 | 50.0 | 3.991283 | 25.0 | 558680.0 | 0.079826 | Y |
| 9 | IC 240-583404/11 | 62.5 | 4.651534 | 25.0 | 575595.0 | 0.074425 | Y |



## Calibration / Tetrahydrofuran

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

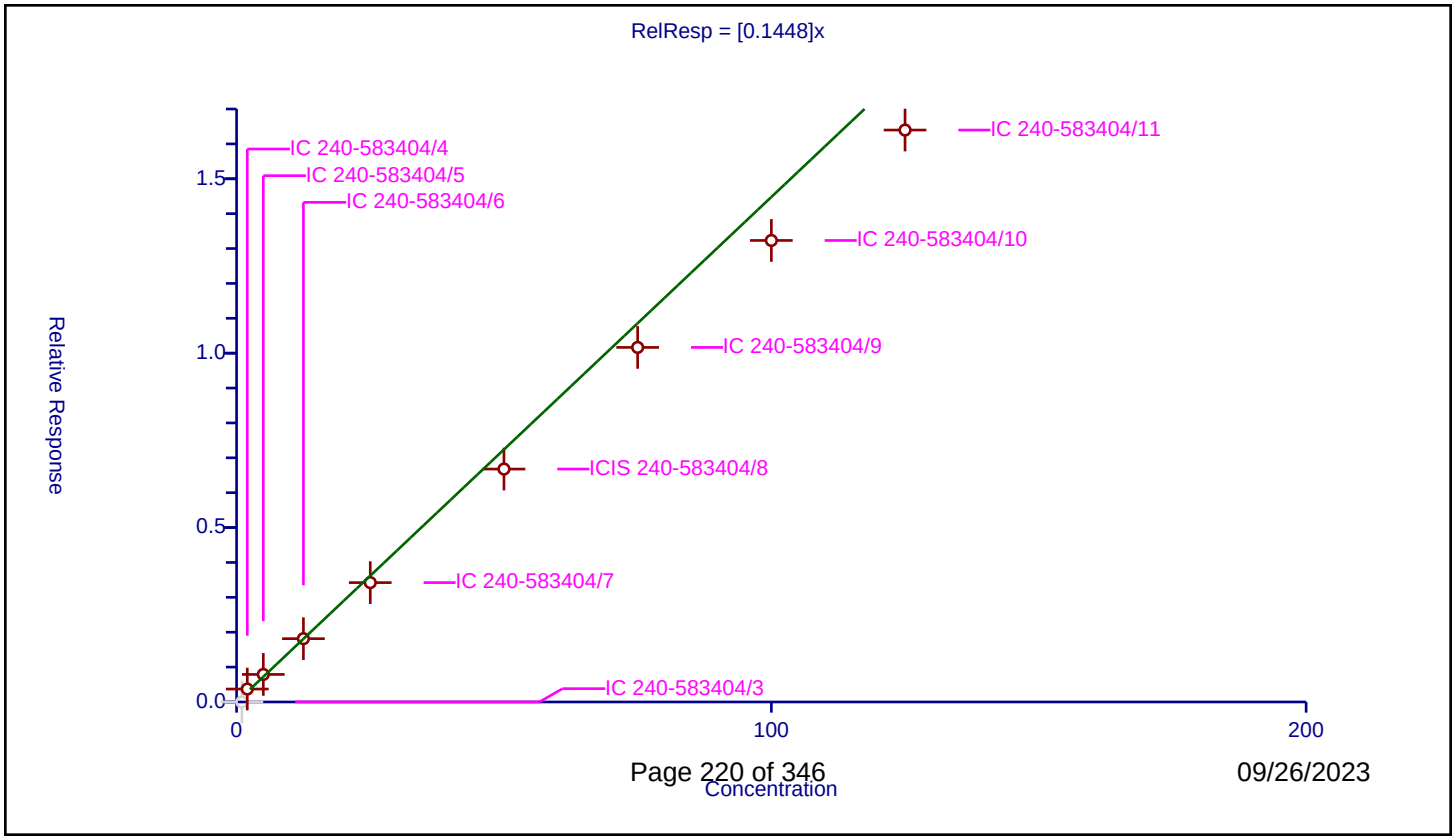
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1448 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 210000 |
| **Relative Standard Error:** | 12.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.975 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 1.0 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 2.0 | 0.370977 | 25.0 | 528806.0 | 0.185489 | Y |
| 3 | IC 240-583404/5 | 5.0 | 0.789993 | 25.0 | 528011.0 | 0.157999 | Y |
| 4 | IC 240-583404/6 | 12.5 | 1.815269 | 25.0 | 536656.0 | 0.145222 | Y |
| 5 | IC 240-583404/7 | 25.0 | 3.422154 | 25.0 | 533582.0 | 0.136886 | Y |
| 6 | ICIS 240-583404/8 | 50.0 | 6.677726 | 25.0 | 549461.0 | 0.133555 | Y |
| 7 | IC 240-583404/9 | 75.0 | 10.164919 | 25.0 | 552149.0 | 0.135532 | Y |
| 8 | IC 240-583404/10 | 100.0 | 13.231412 | 25.0 | 558680.0 | 0.132314 | Y |
| 9 | IC 240-583404/11 | 125.0 | 16.396859 | 25.0 | 575595.0 | 0.131175 | Y |



## Calibration / Chloroform

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

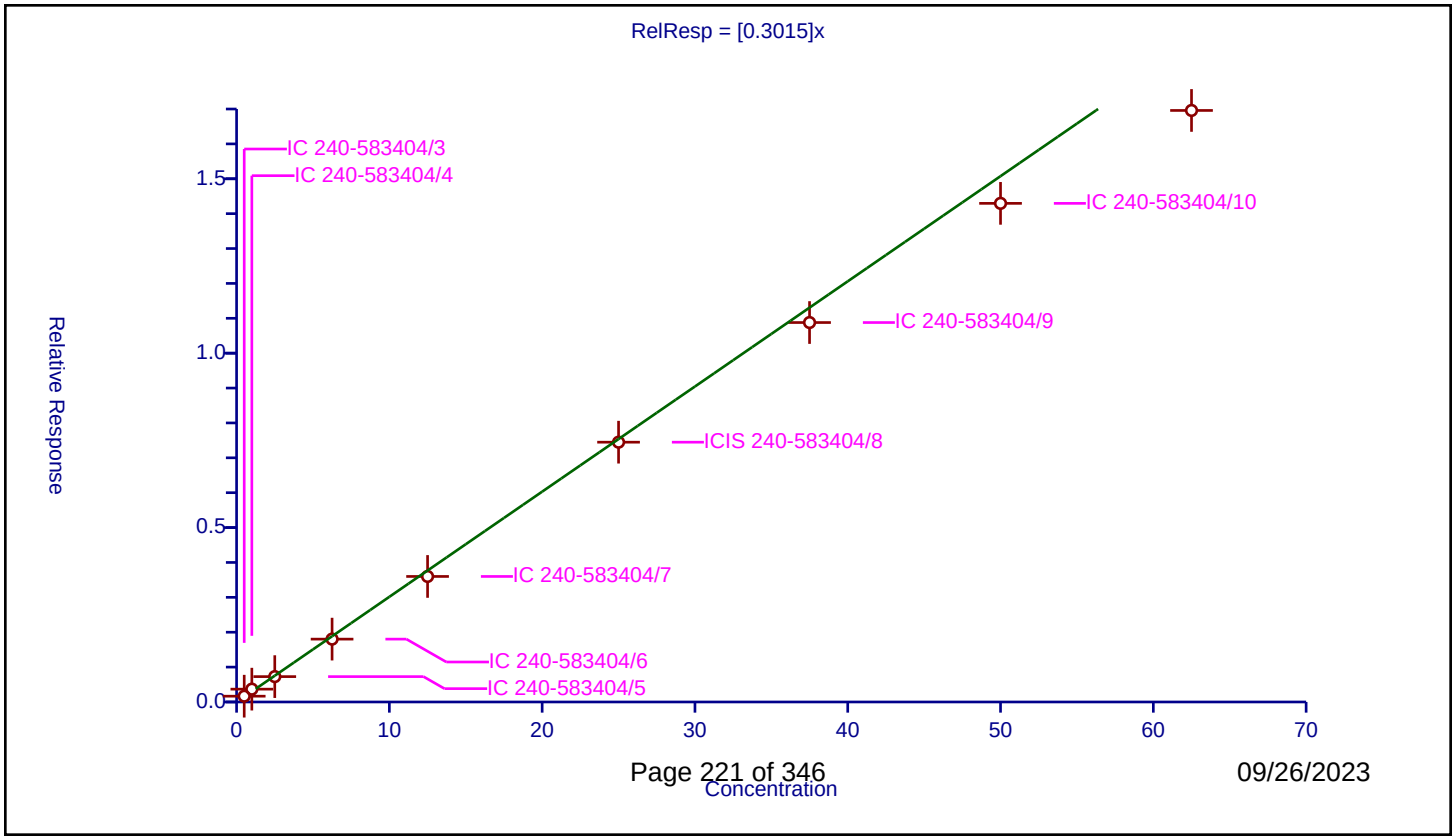
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3015 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 208000 |
| **Relative Standard Error:** | 9.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.986 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.166384 | 25.0 | 519883.0 | 0.332767 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.368046 | 25.0 | 528806.0 | 0.368046 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.727636 | 25.0 | 528011.0 | 0.291055 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.802598 | 25.0 | 536656.0 | 0.288416 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.599166 | 25.0 | 533582.0 | 0.287933 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 7.447935 | 25.0 | 549461.0 | 0.297917 | Y |
| 7 | IC 240-583404/9 | 37.5 | 10.878223 | 25.0 | 552149.0 | 0.290086 | Y |
| 8 | IC 240-583404/10 | 50.0 | 14.295482 | 25.0 | 558680.0 | 0.28591 | Y |
| 9 | IC 240-583404/11 | 62.5 | 16.958539 | 25.0 | 575595.0 | 0.271337 | Y |



## Calibration / Cyclohexane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

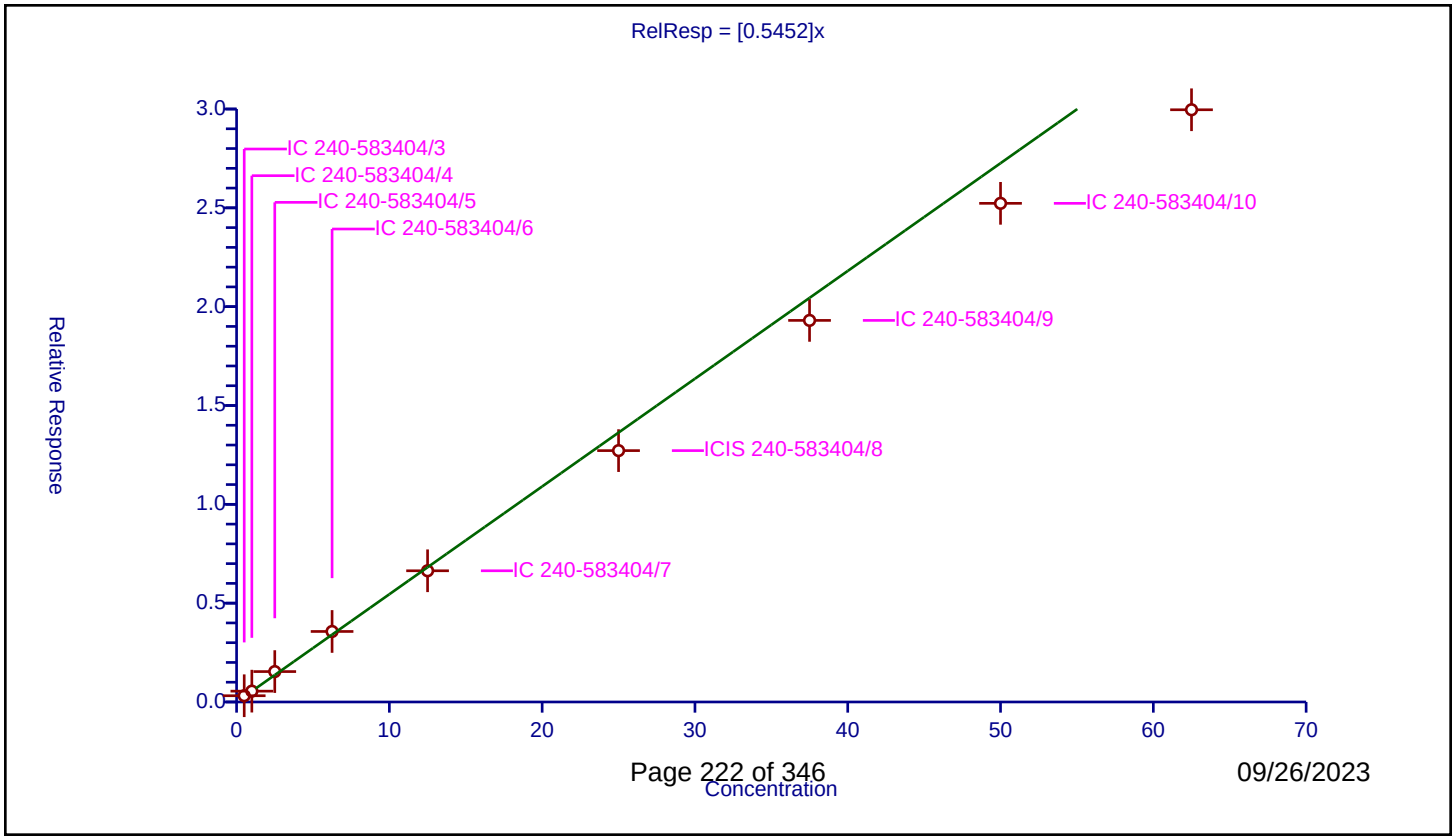
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5452 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 368000 |
| **Relative Standard Error:** | 9.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.987 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.31661 | 25.0 | 519883.0 | 0.633219 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.548358 | 25.0 | 528806.0 | 0.548358 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.538794 | 25.0 | 528011.0 | 0.615517 | Y |
| 4 | IC 240-583404/6 | 6.25 | 3.567928 | 25.0 | 536656.0 | 0.570868 | Y |
| 5 | IC 240-583404/7 | 12.5 | 6.638811 | 25.0 | 533582.0 | 0.531105 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 12.718146 | 25.0 | 549461.0 | 0.508726 | Y |
| 7 | IC 240-583404/9 | 37.5 | 19.306021 | 25.0 | 552149.0 | 0.514827 | Y |
| 8 | IC 240-583404/10 | 50.0 | 25.227948 | 25.0 | 558680.0 | 0.504559 | Y |
| 9 | IC 240-583404/11 | 62.5 | 29.961605 | 25.0 | 575595.0 | 0.479386 | Y |



## Calibration / 1,1,1-Trichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

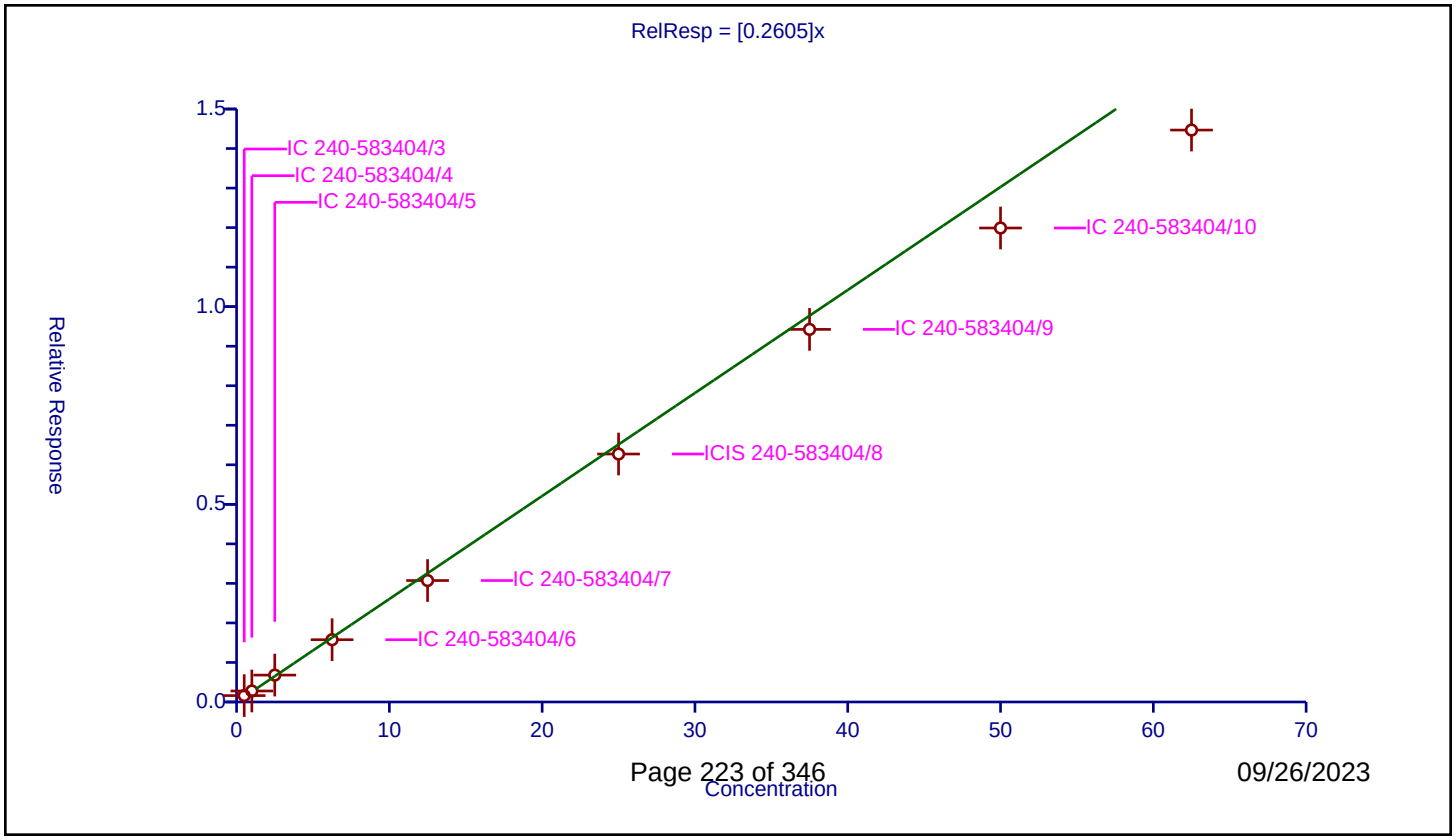
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2605 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 177000 |
| **Relative Standard Error:** | 10.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.984 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.161575 | 25.0 | 519883.0 | 0.32315 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.278174 | 25.0 | 528806.0 | 0.278174 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.680573 | 25.0 | 528011.0 | 0.272229 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.575404 | 25.0 | 536656.0 | 0.252065 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.072583 | 25.0 | 533582.0 | 0.245807 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 6.272465 | 25.0 | 549461.0 | 0.250899 | Y |
| 7 | IC 240-583404/9 | 37.5 | 9.425173 | 25.0 | 552149.0 | 0.251338 | Y |
| 8 | IC 240-583404/10 | 50.0 | 11.989914 | 25.0 | 558680.0 | 0.239798 | Y |
| 9 | IC 240-583404/11 | 62.5 | 14.467508 | 25.0 | 575595.0 | 0.23148 | Y |



## Calibration / Dibromofluoromethane (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

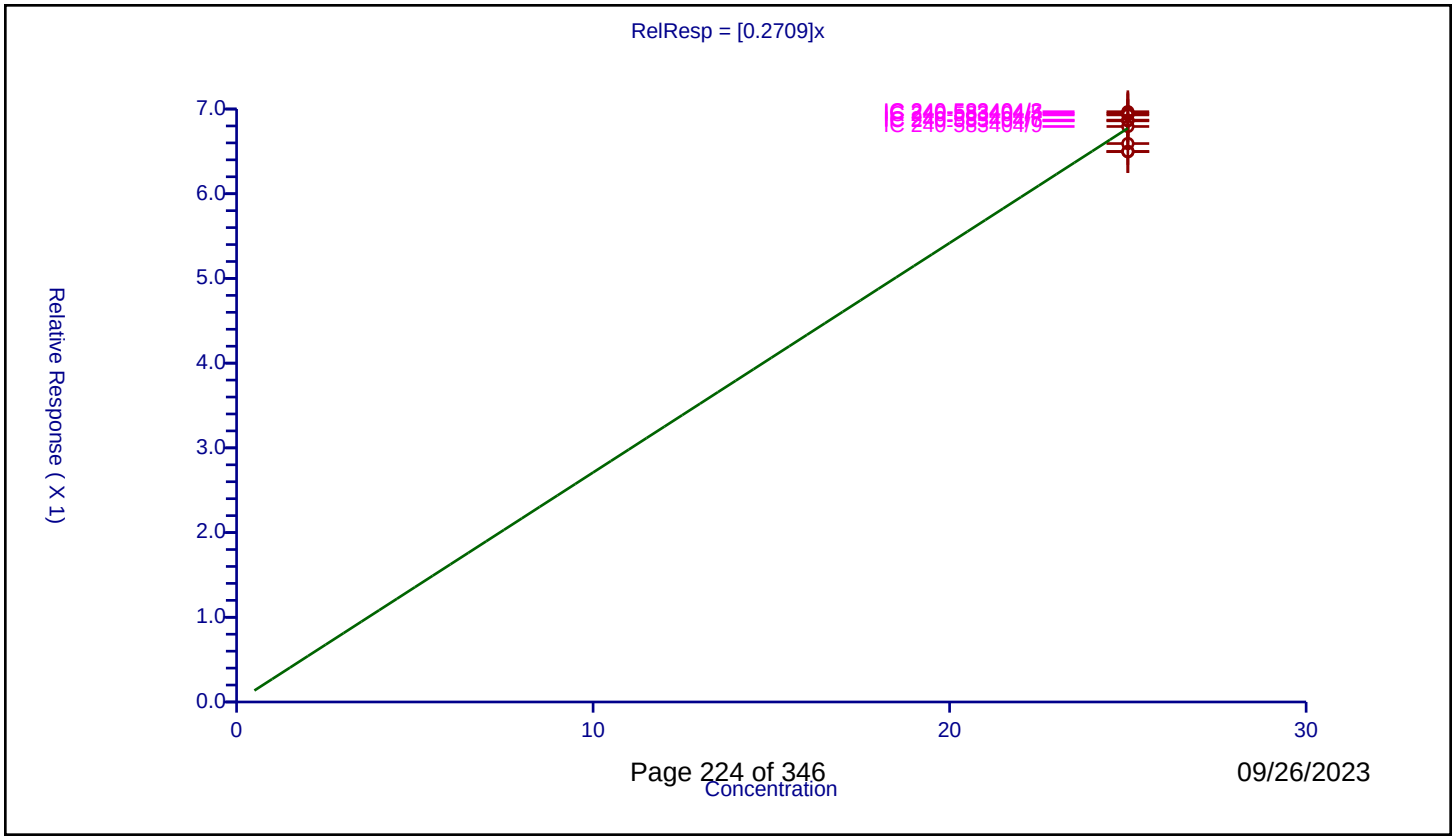
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2709 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 156000 |
| **Relative Standard Error:** | 2.8 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 25.0 | 6.968202 | 25.0 | 519883.0 | 0.278728 | Y |
| 2 | IC 240-583404/4 | 25.0 | 6.930519 | 25.0 | 528806.0 | 0.277221 | Y |
| 3 | IC 240-583404/5 | 25.0 | 6.94673 | 25.0 | 528011.0 | 0.277869 | Y |
| 4 | IC 240-583404/6 | 25.0 | 6.86068 | 25.0 | 536656.0 | 0.274427 | Y |
| 5 | IC 240-583404/7 | 25.0 | 6.868719 | 25.0 | 533582.0 | 0.274749 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 6.496457 | 25.0 | 549461.0 | 0.259858 | Y |
| 7 | IC 240-583404/9 | 25.0 | 6.793864 | 25.0 | 552149.0 | 0.271755 | Y |
| 8 | IC 240-583404/10 | 25.0 | 6.59228 | 25.0 | 558680.0 | 0.263691 | Y |
| 9 | IC 240-583404/11 | 25.0 | 6.499231 | 25.0 | 575595.0 | 0.259969 | Y |






09/26/2023

## Calibration / Carbon tetrachloride

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

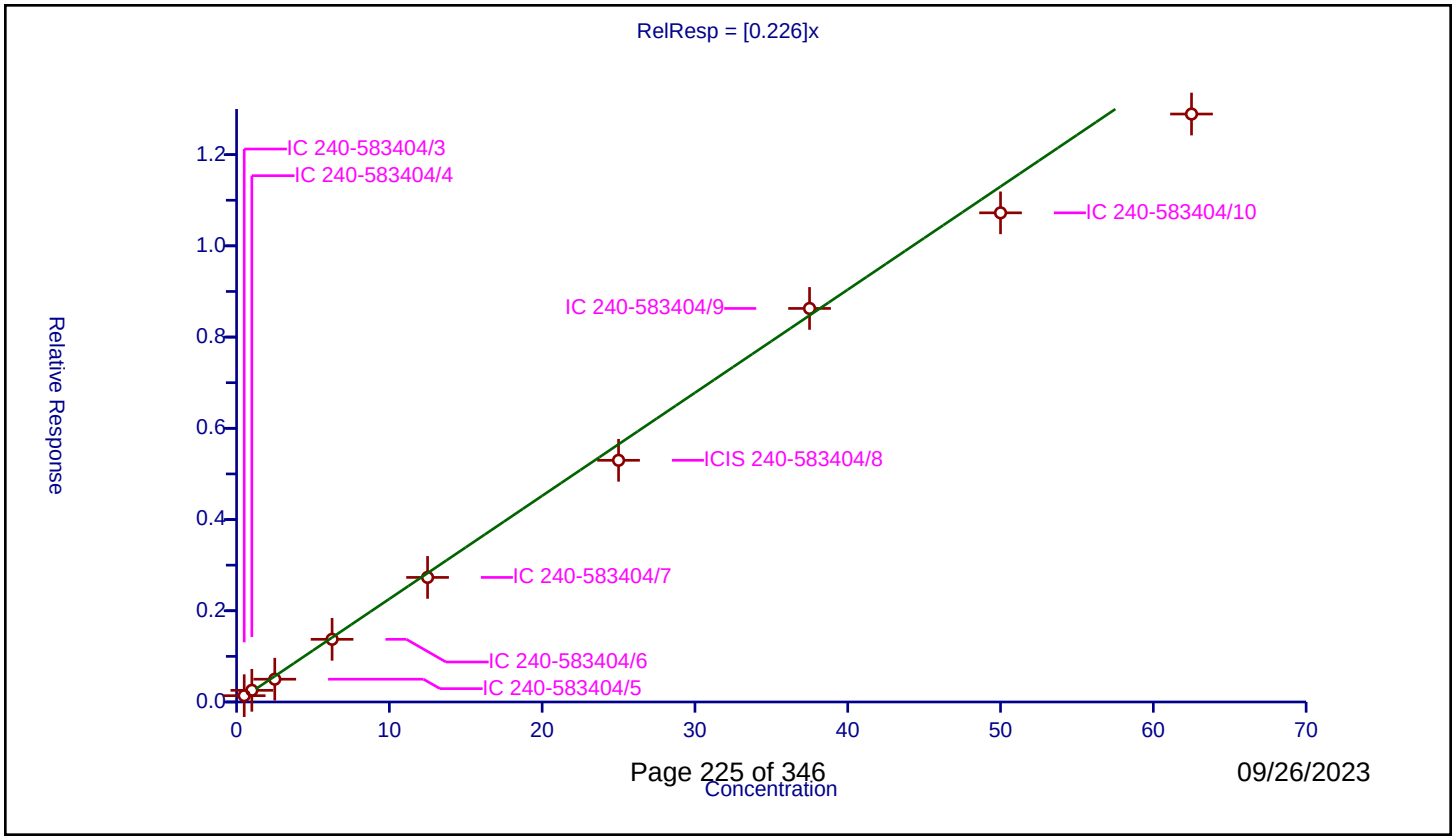
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.226 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 158000 |
| **Relative Standard Error:** | 11.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.138493 | 25.0 | 519883.0 | 0.276985 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.255907 | 25.0 | 528806.0 | 0.255907 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.499753 | 25.0 | 528011.0 | 0.199901 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.374344 | 25.0 | 536656.0 | 0.219895 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.731305 | 25.0 | 533582.0 | 0.218504 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 5.298829 | 25.0 | 549461.0 | 0.211953 | Y |
| 7 | IC 240-583404/9 | 37.5 | 8.628151 | 25.0 | 552149.0 | 0.230084 | Y |
| 8 | IC 240-583404/10 | 50.0 | 10.72376 | 25.0 | 558680.0 | 0.214475 | Y |
| 9 | IC 240-583404/11 | 62.5 | 12.890053 | 25.0 | 575595.0 | 0.206241 | Y |



## Calibration / 1,1-Dichloropropene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

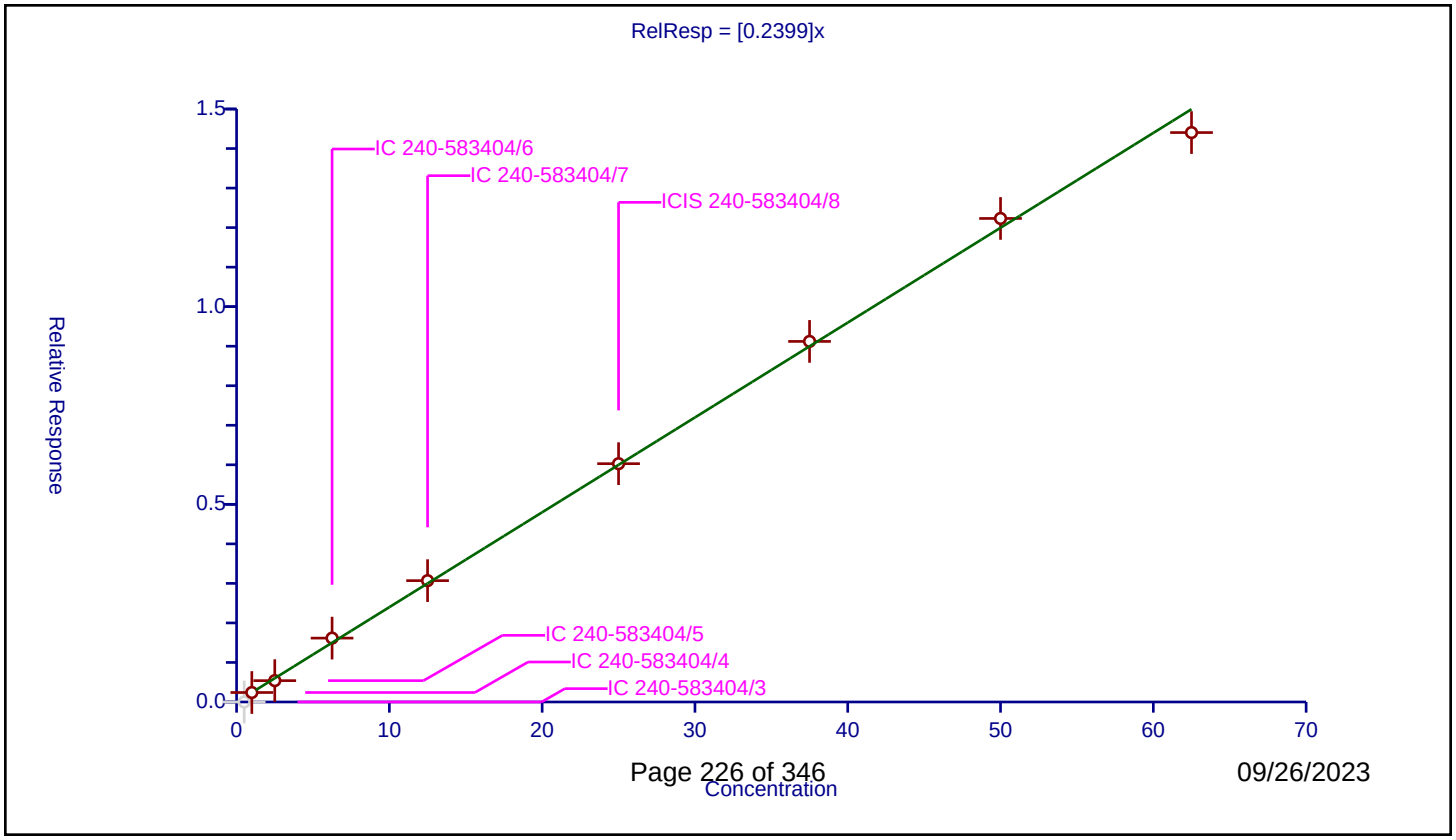
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2399 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 188000 |
| **Relative Standard Error:** | 5.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.239785 | 25.0 | 528806.0 | 0.239785 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.540046 | 25.0 | 528011.0 | 0.216018 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.615886 | 25.0 | 536656.0 | 0.258542 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.069397 | 25.0 | 533582.0 | 0.245552 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 6.028544 | 25.0 | 549461.0 | 0.241142 | Y |
| 7 | IC 240-583404/9 | 37.5 | 9.121315 | 25.0 | 552149.0 | 0.243235 | Y |
| 8 | IC 240-583404/10 | 50.0 | 12.231599 | 25.0 | 558680.0 | 0.244632 | Y |
| 9 | IC 240-583404/11 | 62.5 | 14.404051 | 25.0 | 575595.0 | 0.230465 | Y |



## Calibration / Benzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

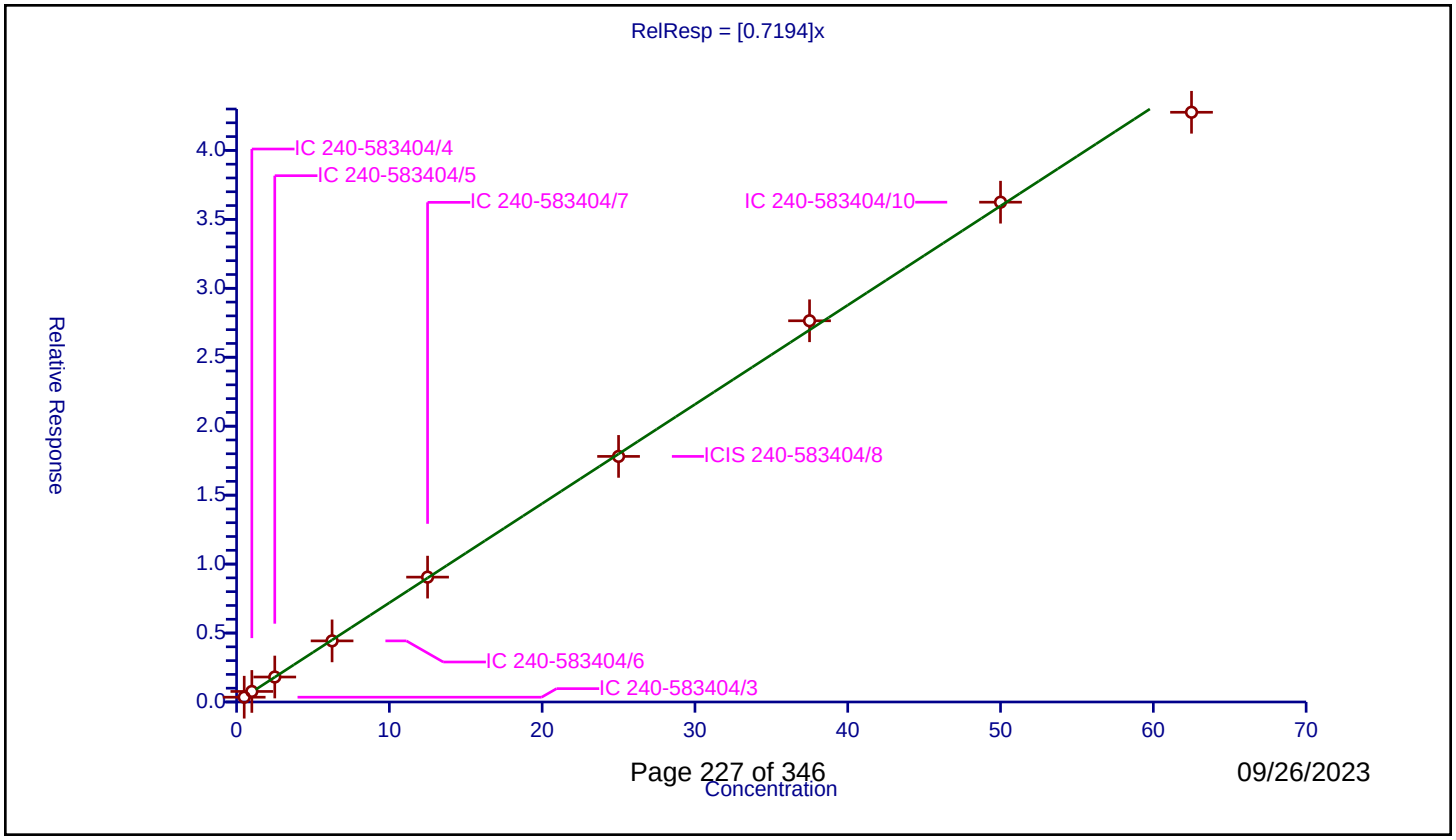
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.7194 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 524000 |
| **Relative Standard Error:** | 3.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.346761 | 25.0 | 519883.0 | 0.693521 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.764647 | 25.0 | 528806.0 | 0.764647 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.810237 | 25.0 | 528011.0 | 0.724095 | Y |
| 4 | IC 240-583404/6 | 6.25 | 4.431703 | 25.0 | 536656.0 | 0.709072 | Y |
| 5 | IC 240-583404/7 | 12.5 | 9.055216 | 25.0 | 533582.0 | 0.724417 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 17.808953 | 25.0 | 549461.0 | 0.712358 | Y |
| 7 | IC 240-583404/9 | 37.5 | 27.643127 | 25.0 | 552149.0 | 0.73715 | Y |
| 8 | IC 240-583404/10 | 50.0 | 36.244004 | 25.0 | 558680.0 | 0.72488 | Y |
| 9 | IC 240-583404/11 | 62.5 | 42.763358 | 25.0 | 575595.0 | 0.684214 | Y |






09/26/2023

## Calibration / 1,2-Dichloroethane-d4 (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

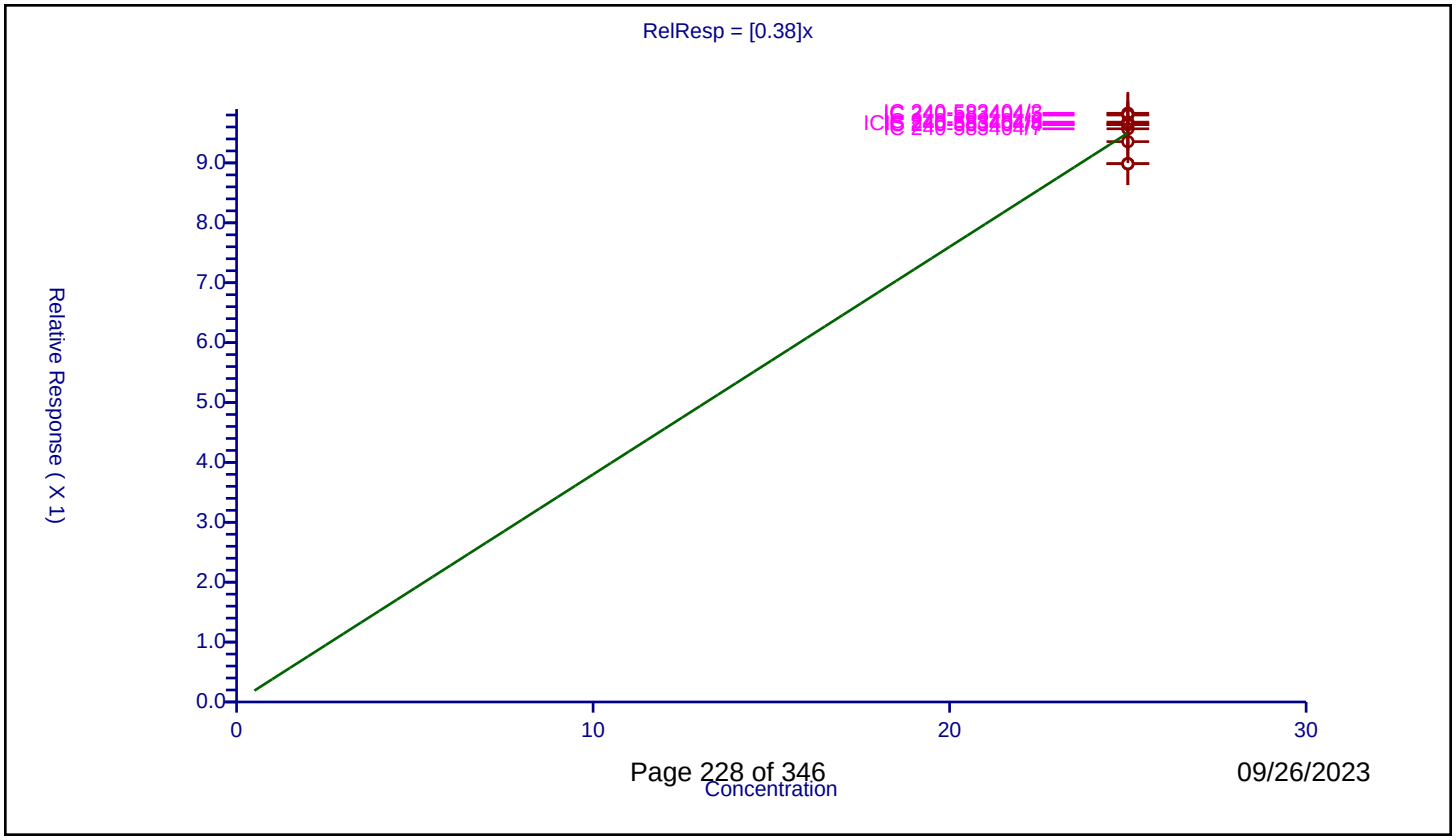
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.38 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 218000 |
| **Relative Standard Error:** | 3.4 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 25.0 | 9.829038 | 25.0 | 519883.0 | 0.393162 | Y |
| 2 | IC 240-583404/4 | 25.0 | 9.638695 | 25.0 | 528806.0 | 0.385548 | Y |
| 3 | IC 240-583404/5 | 25.0 | 9.799985 | 25.0 | 528011.0 | 0.391999 | Y |
| 4 | IC 240-583404/6 | 25.0 | 9.680829 | 25.0 | 536656.0 | 0.387233 | Y |
| 5 | IC 240-583404/7 | 25.0 | 9.56971 | 25.0 | 533582.0 | 0.382788 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 9.646636 | 25.0 | 549461.0 | 0.385865 | Y |
| 7 | IC 240-583404/9 | 25.0 | 8.98589 | 25.0 | 552149.0 | 0.359436 | Y |
| 8 | IC 240-583404/10 | 25.0 | 9.355355 | 25.0 | 558680.0 | 0.374214 | Y |
| 9 | IC 240-583404/11 | 25.0 | 8.987787 | 25.0 | 575595.0 | 0.359511 | Y |






09/26/2023

## Calibration / Isobutyl alcohol

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

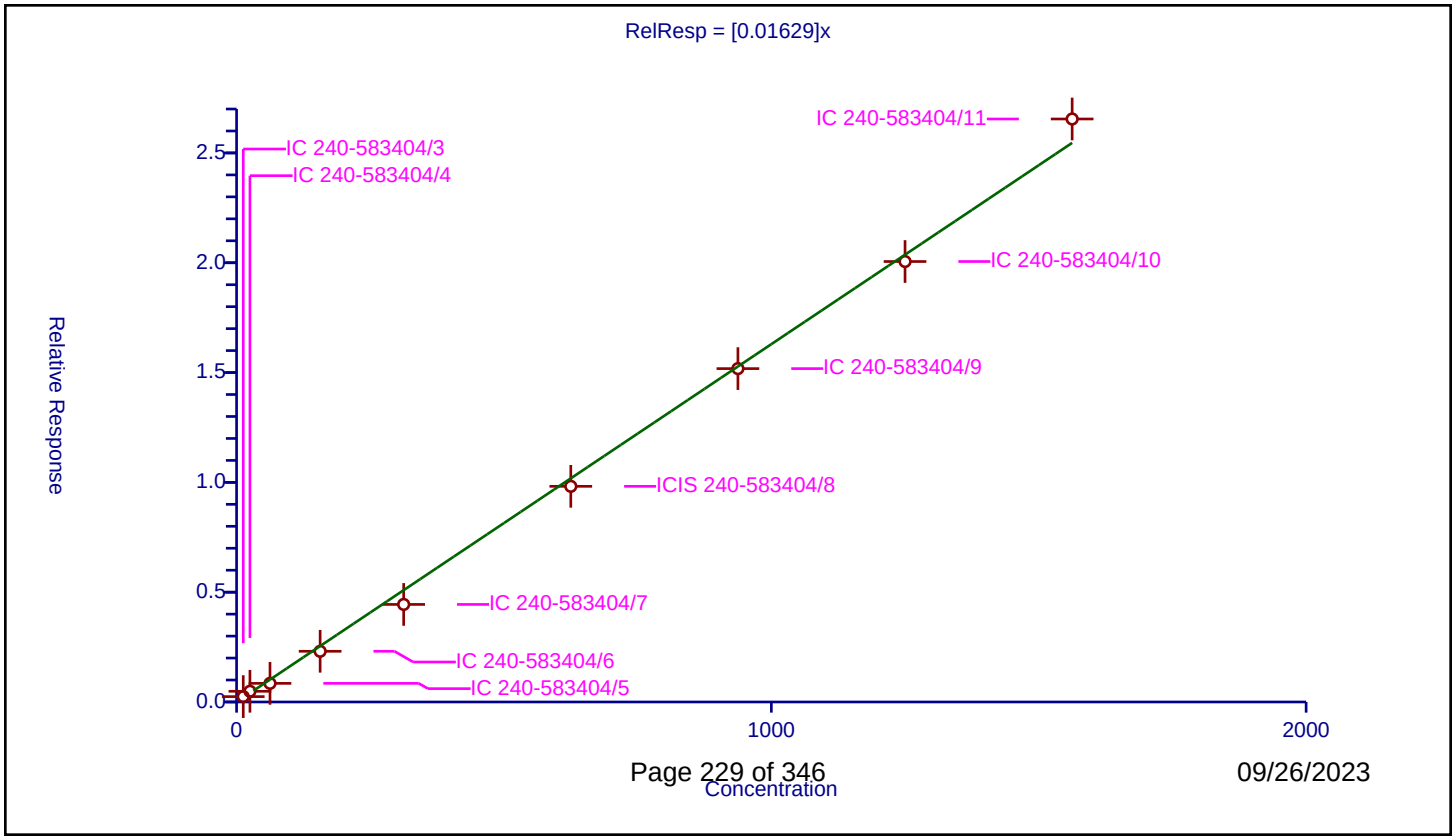
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.01629 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 245000 |
| **Relative Standard Error:** | 13.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.976 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 12.5 | 0.245177 | 25.0 | 438458.0 | 0.019614 | Y |
| 2 | IC 240-583404/4 | 25.0 | 0.487927 | 25.0 | 449811.0 | 0.019517 | Y |
| 3 | IC 240-583404/5 | 62.5 | 0.848724 | 25.0 | 447878.0 | 0.01358 | Y |
| 4 | IC 240-583404/6 | 156.25 | 2.30877 | 25.0 | 434398.0 | 0.014776 | Y |
| 5 | IC 240-583404/7 | 312.5 | 4.442773 | 25.0 | 445707.0 | 0.014217 | Y |
| 6 | ICIS 240-583404/8 | 625.0 | 9.81993 | 25.0 | 456238.0 | 0.015712 | Y |
| 7 | IC 240-583404/9 | 937.5 | 15.179705 | 25.0 | 450656.0 | 0.016192 | Y |
| 8 | IC 240-583404/10 | 1250.0 | 20.055942 | 25.0 | 467718.0 | 0.016045 | Y |
| 9 | IC 240-583404/11 | 1562.5 | 26.545455 | 25.0 | 446147.0 | 0.016989 | Y |



## Calibration / 1,2-Dichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

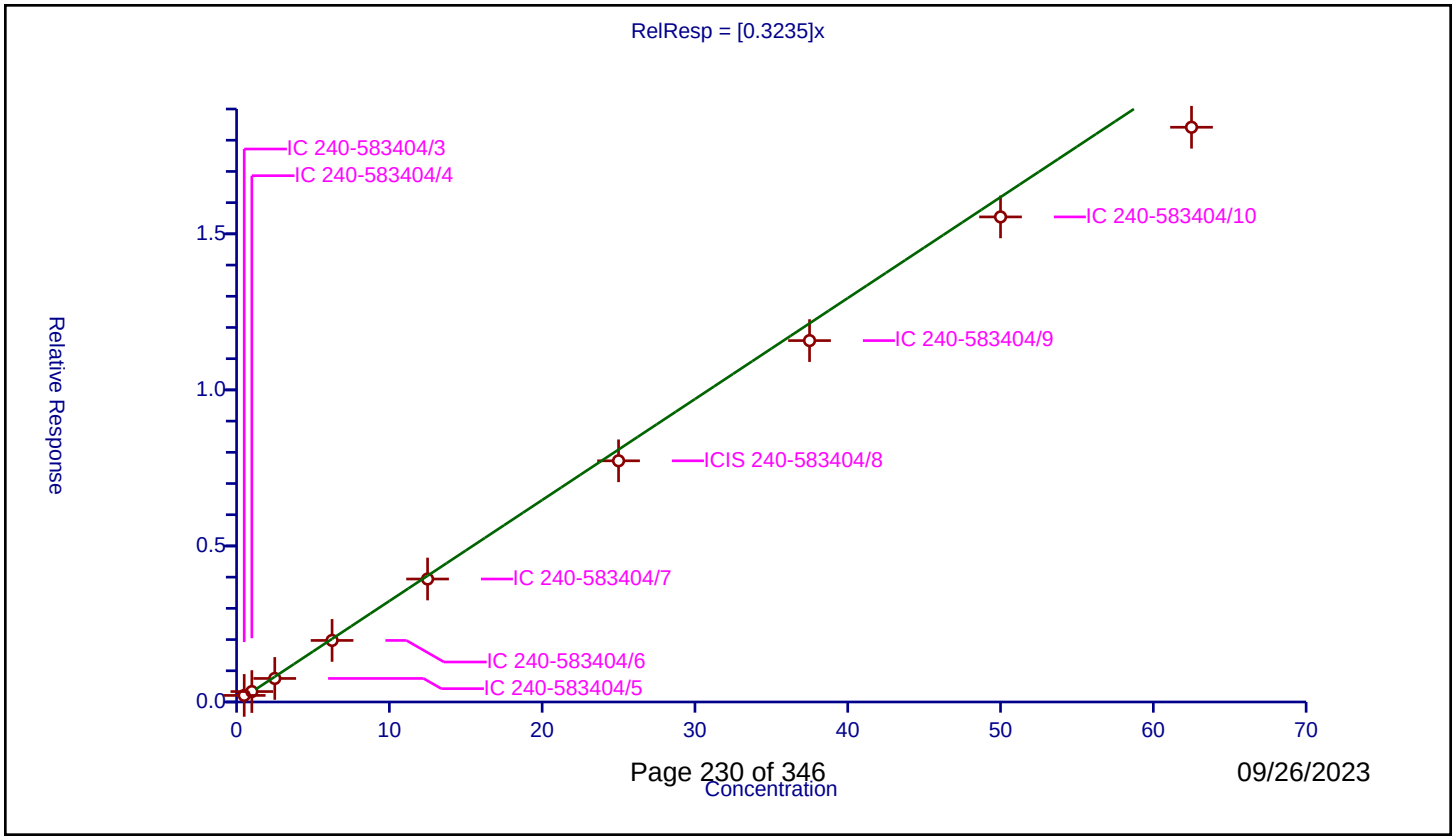
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3235 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 225000 |
| **Relative Standard Error:** | 11.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.980 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.210576 | 25.0 | 519883.0 | 0.421152 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.334574 | 25.0 | 528806.0 | 0.334574 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.754388 | 25.0 | 528011.0 | 0.301755 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.972586 | 25.0 | 536656.0 | 0.315614 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.940069 | 25.0 | 533582.0 | 0.315206 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 7.727983 | 25.0 | 549461.0 | 0.309119 | Y |
| 7 | IC 240-583404/9 | 37.5 | 11.579755 | 25.0 | 552149.0 | 0.308793 | Y |
| 8 | IC 240-583404/10 | 50.0 | 15.542753 | 25.0 | 558680.0 | 0.310855 | Y |
| 9 | IC 240-583404/11 | 62.5 | 18.415596 | 25.0 | 575595.0 | 0.29465 | Y |



## Calibration / n-Heptane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

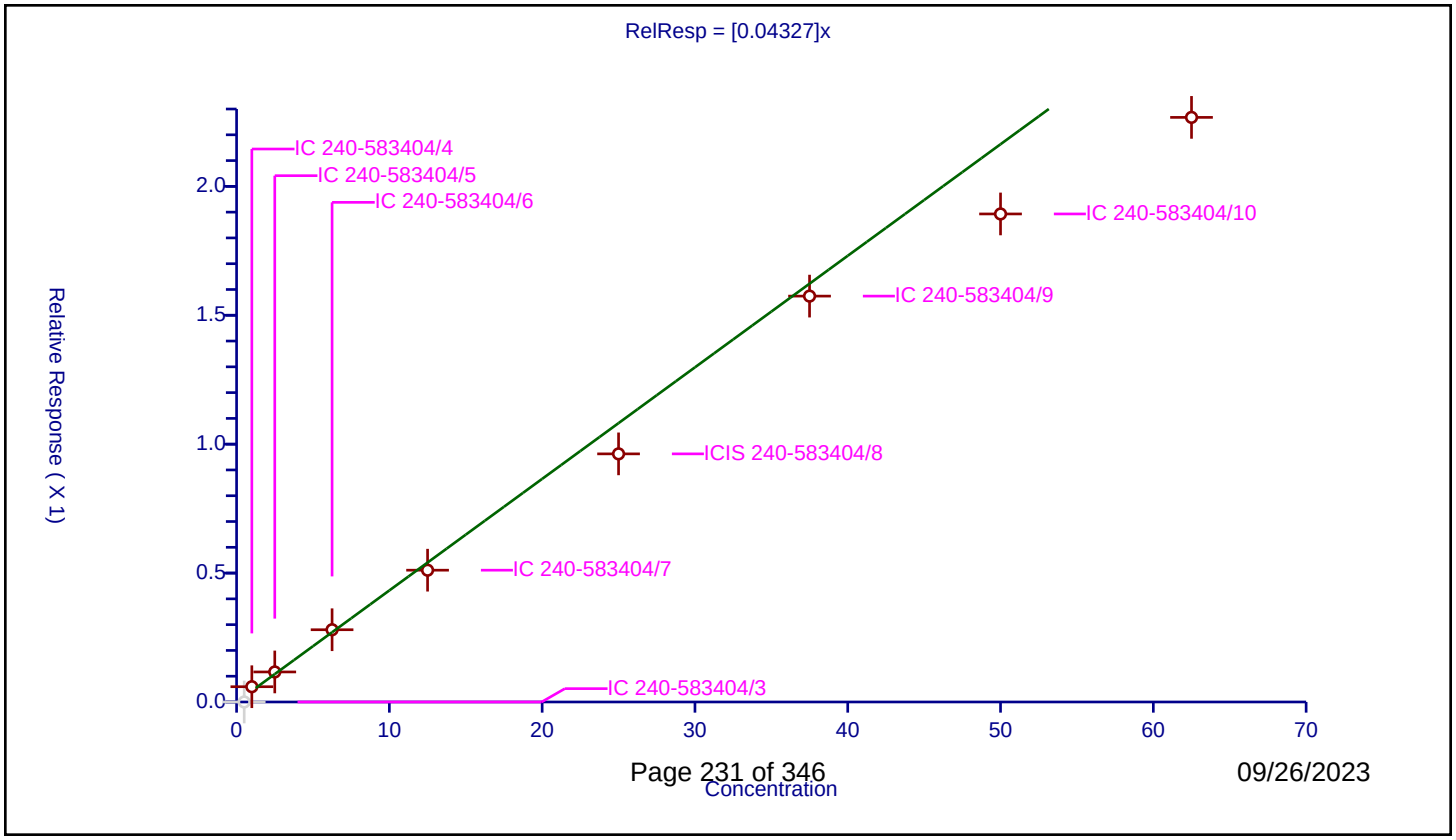
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.04327 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 30100 |
| **Relative Standard Error:** | 16.9 |
| **Correlation Coefficient:** | 0.997 |
| **Coefficient of Determination (Adjusted):** | 0.954 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.05919 | 25.0 | 528806.0 | 0.05919 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.116475 | 25.0 | 528011.0 | 0.04659 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.280254 | 25.0 | 536656.0 | 0.044841 | Y |
| 5 | IC 240-583404/7 | 12.5 | 0.511215 | 25.0 | 533582.0 | 0.040897 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 0.962352 | 25.0 | 549461.0 | 0.038494 | Y |
| 7 | IC 240-583404/9 | 37.5 | 1.574349 | 25.0 | 552149.0 | 0.041983 | Y |
| 8 | IC 240-583404/10 | 50.0 | 1.892944 | 25.0 | 558680.0 | 0.037859 | Y |
| 9 | IC 240-583404/11 | 62.5 | 2.267523 | 25.0 | 575595.0 | 0.03628 | Y |



## Calibration / Trichloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

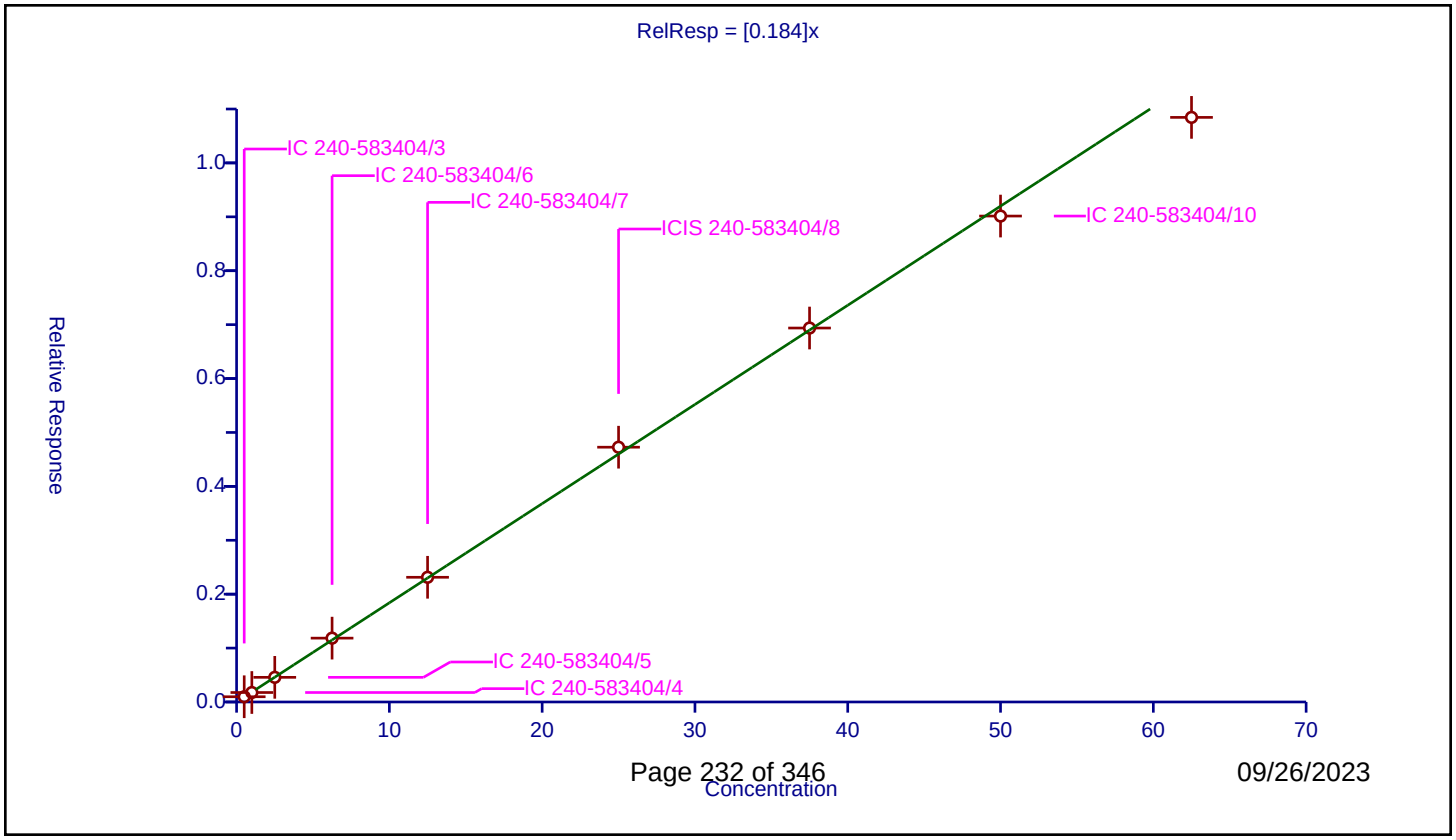
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.184 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 132000 |
| **Relative Standard Error:** | 3.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.097282 | 25.0 | 519883.0 | 0.194563 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.175915 | 25.0 | 528806.0 | 0.175915 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.457093 | 25.0 | 528011.0 | 0.182837 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.184418 | 25.0 | 536656.0 | 0.189507 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.313515 | 25.0 | 533582.0 | 0.185081 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.726359 | 25.0 | 549461.0 | 0.189054 | Y |
| 7 | IC 240-583404/9 | 37.5 | 6.937077 | 25.0 | 552149.0 | 0.184989 | Y |
| 8 | IC 240-583404/10 | 50.0 | 9.014418 | 25.0 | 558680.0 | 0.180288 | Y |
| 9 | IC 240-583404/11 | 62.5 | 10.844908 | 25.0 | 575595.0 | 0.173519 | Y |






09/26/2023

## Calibration / Methylcyclohexane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

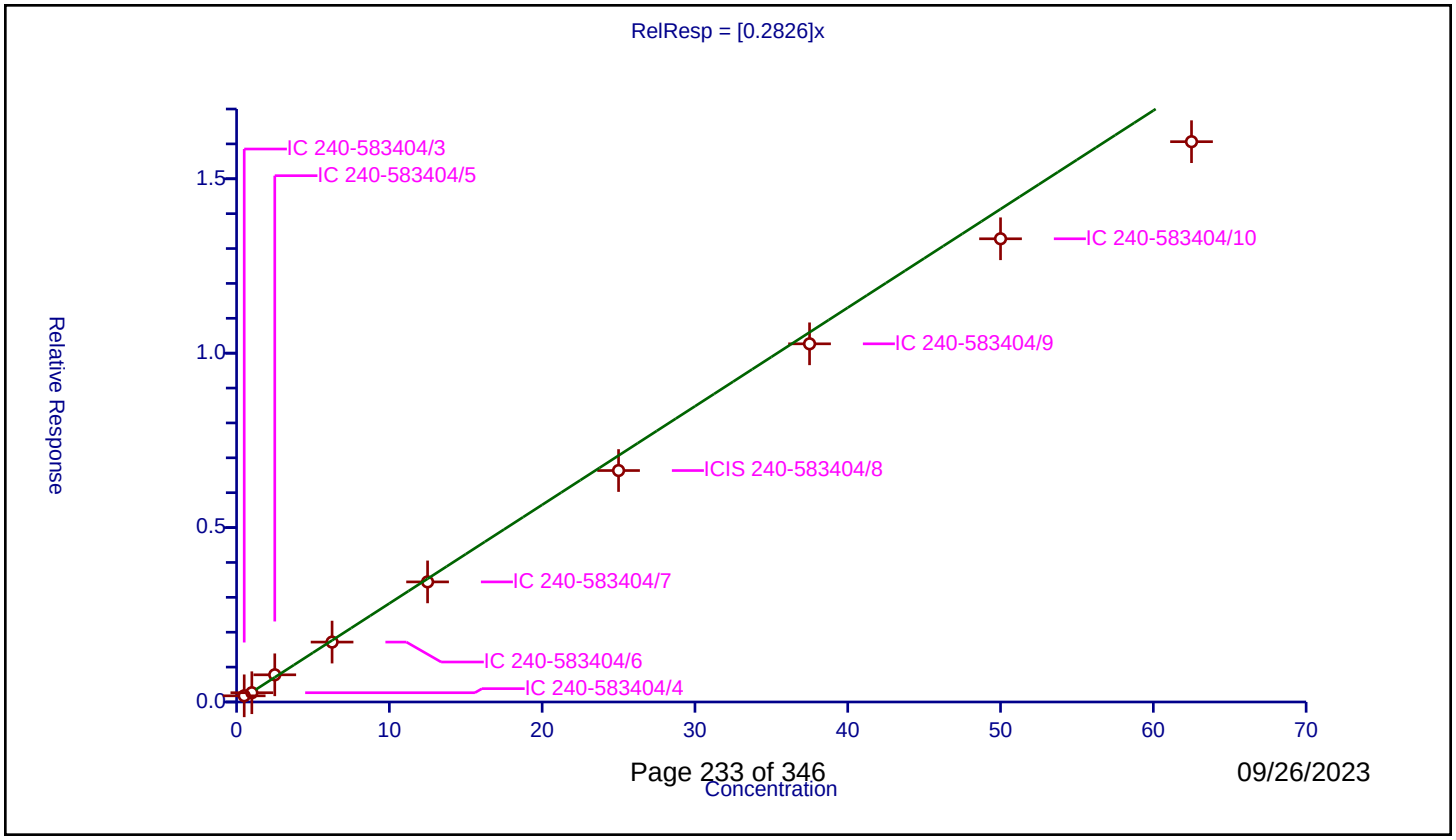
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2826 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 195000 |
| **Relative Standard Error:** | 10.9 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.983 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.176963 | 25.0 | 519883.0 | 0.353926 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.26574 | 25.0 | 528806.0 | 0.26574 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.779387 | 25.0 | 528011.0 | 0.311755 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.717441 | 25.0 | 536656.0 | 0.274791 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.442629 | 25.0 | 533582.0 | 0.27541 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 6.635821 | 25.0 | 549461.0 | 0.265433 | Y |
| 7 | IC 240-583404/9 | 37.5 | 10.26856 | 25.0 | 552149.0 | 0.273828 | Y |
| 8 | IC 240-583404/10 | 50.0 | 13.279516 | 25.0 | 558680.0 | 0.26559 | Y |
| 9 | IC 240-583404/11 | 62.5 | 16.063117 | 25.0 | 575595.0 | 0.25701 | Y |



## Calibration / 1,2-Dichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

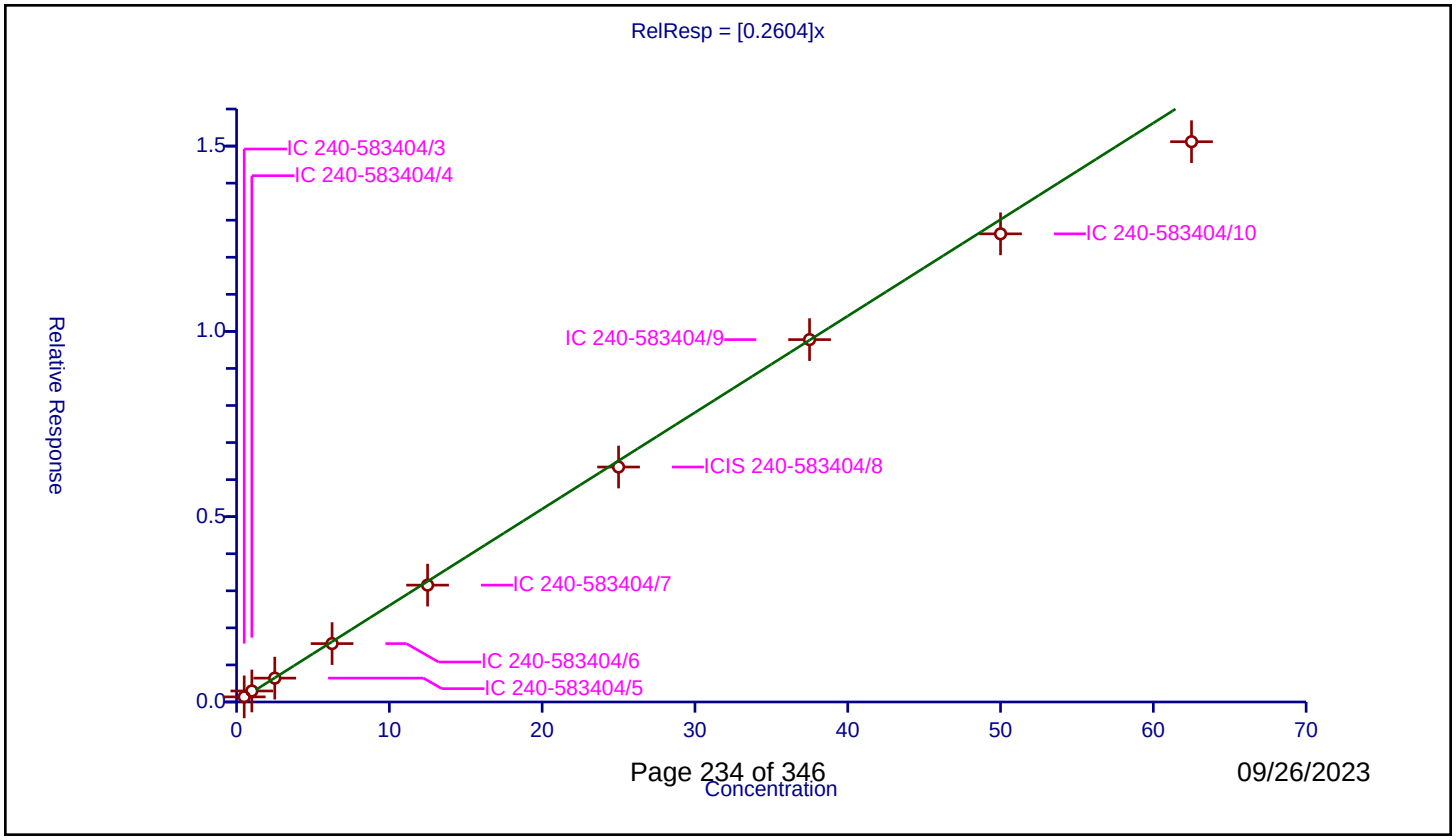
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2604 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 185000 |
| **Relative Standard Error:** | 6.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.137435 | 25.0 | 519883.0 | 0.27487 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.297604 | 25.0 | 528806.0 | 0.297604 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.643926 | 25.0 | 528011.0 | 0.25757 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.575404 | 25.0 | 536656.0 | 0.252065 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.153264 | 25.0 | 533582.0 | 0.252261 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 6.340395 | 25.0 | 549461.0 | 0.253616 | Y |
| 7 | IC 240-583404/9 | 37.5 | 9.778022 | 25.0 | 552149.0 | 0.260747 | Y |
| 8 | IC 240-583404/10 | 50.0 | 12.63165 | 25.0 | 558680.0 | 0.252633 | Y |
| 9 | IC 240-583404/11 | 62.5 | 15.117965 | 25.0 | 575595.0 | 0.241887 | Y |






09/26/2023

## Calibration / Dibromomethane

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

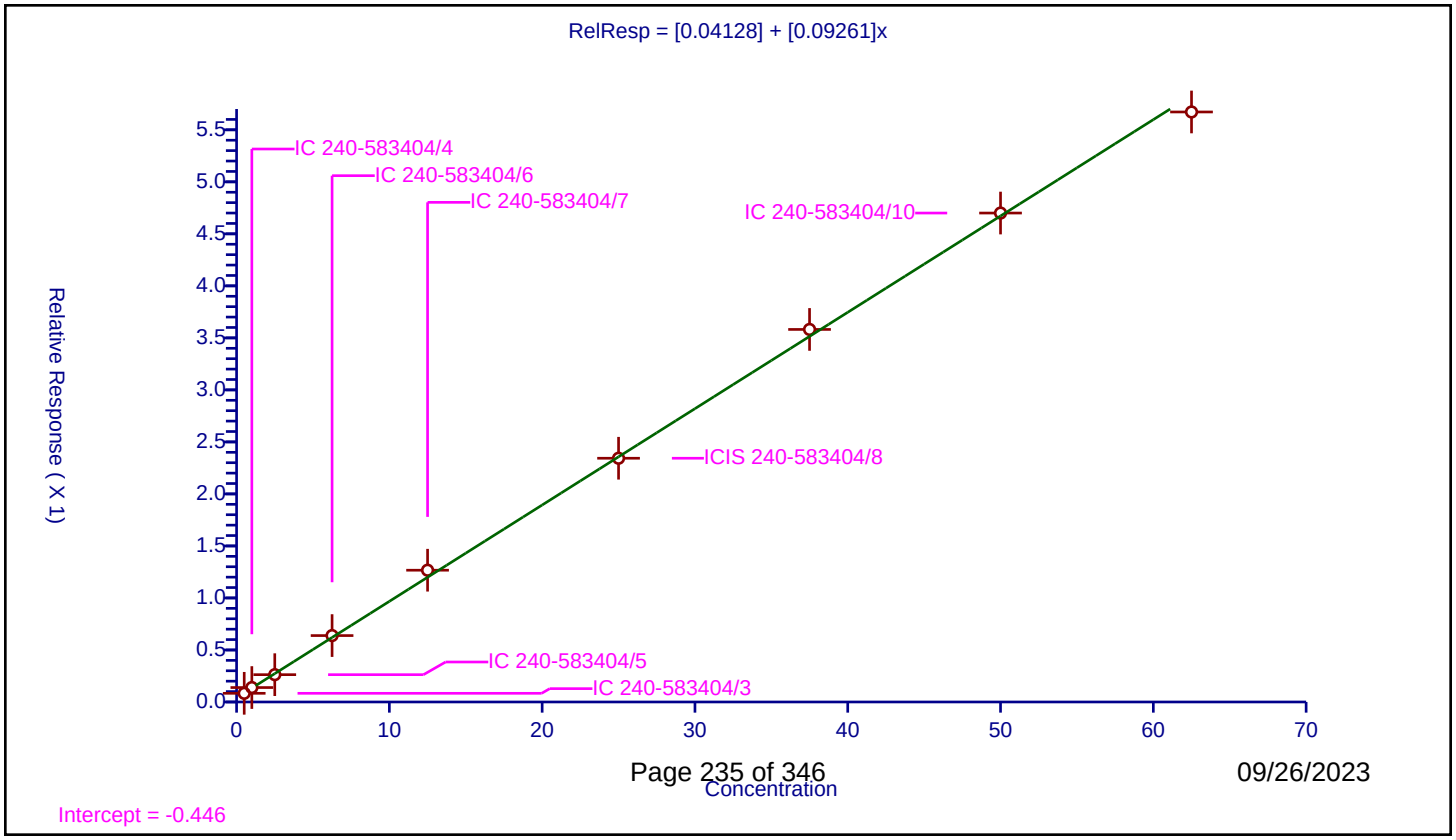
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.04128 |
| **Slope:** | 0.09261 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 73600 |
| **Relative Standard Error:** | 5.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.083336 | 25.0 | 519883.0 | 0.166672 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.138851 | 25.0 | 528806.0 | 0.138851 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.262542 | 25.0 | 528011.0 | 0.105017 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.638444 | 25.0 | 536656.0 | 0.102151 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.266769 | 25.0 | 533582.0 | 0.101341 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 2.342978 | 25.0 | 549461.0 | 0.093719 | Y |
| 7 | IC 240-583404/9 | 37.5 | 3.581144 | 25.0 | 552149.0 | 0.095497 | Y |
| 8 | IC 240-583404/10 | 50.0 | 4.699918 | 25.0 | 558680.0 | 0.093998 | Y |
| 9 | IC 240-583404/11 | 62.5 | 5.671609 | 25.0 | 575595.0 | 0.090746 | Y |






09/26/2023

## Calibration / 1,4-Dioxane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

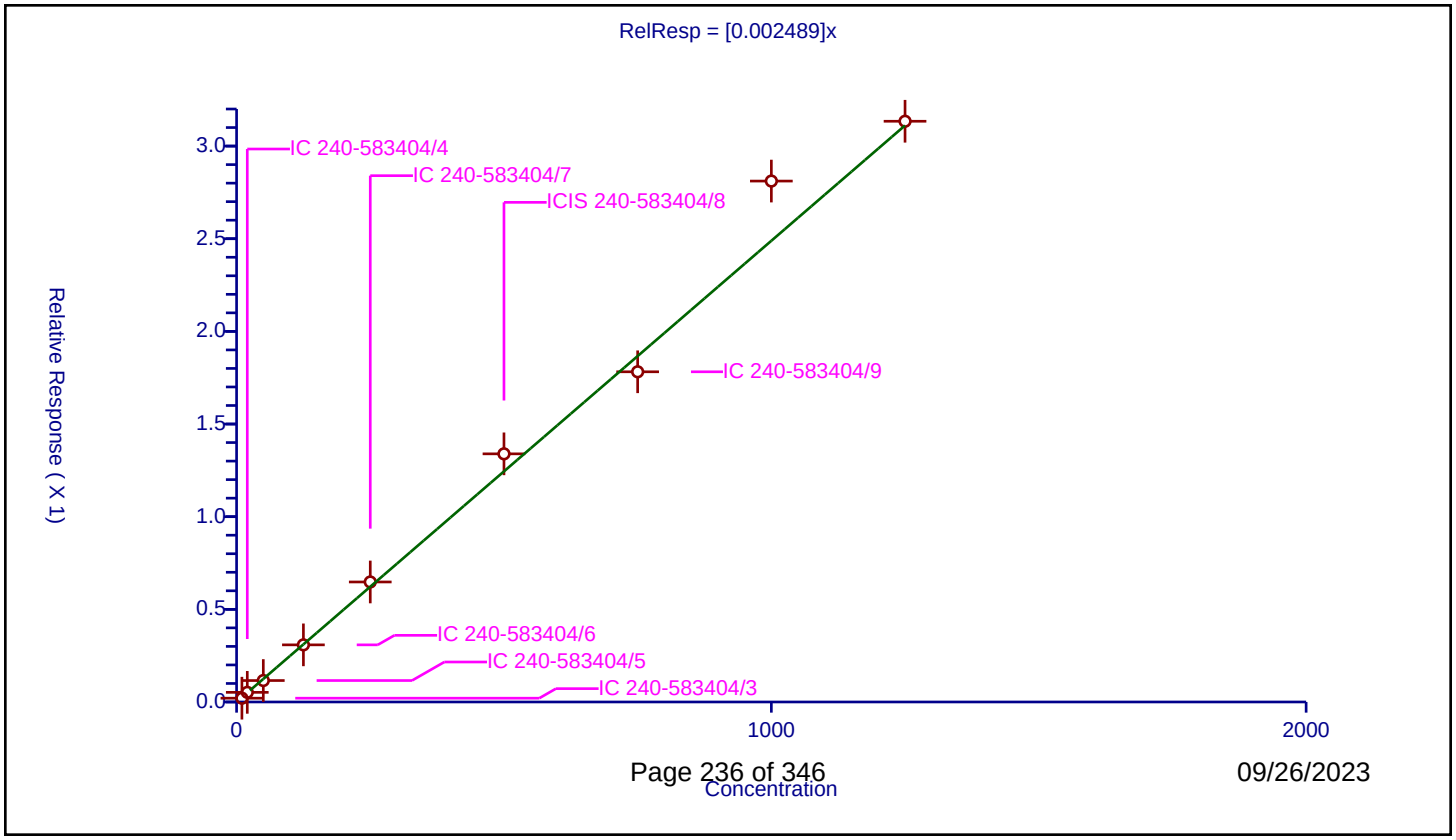
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.002489 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 38400 |
| **Relative Standard Error:** | 8.9 |
| **Correlation Coefficient:** | 0.993 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 10.0 | 0.020533 | 25.0 | 519883.0 | 0.002053 | Y |
| 2 | IC 240-583404/4 | 20.0 | 0.052051 | 25.0 | 528806.0 | 0.002603 | Y |
| 3 | IC 240-583404/5 | 50.0 | 0.115765 | 25.0 | 528011.0 | 0.002315 | Y |
| 4 | IC 240-583404/6 | 125.0 | 0.308251 | 25.0 | 536656.0 | 0.002466 | Y |
| 5 | IC 240-583404/7 | 250.0 | 0.647698 | 25.0 | 533582.0 | 0.002591 | Y |
| 6 | ICIS 240-583404/8 | 500.0 | 1.339176 | 25.0 | 549461.0 | 0.002678 | Y |
| 7 | IC 240-583404/9 | 750.0 | 1.781992 | 25.0 | 552149.0 | 0.002376 | Y |
| 8 | IC 240-583404/10 | 1000.0 | 2.81118 | 25.0 | 558680.0 | 0.002811 | Y |
| 9 | IC 240-583404/11 | 1250.0 | 3.133974 | 25.0 | 575595.0 | 0.002507 | Y |



## Calibration / Dichlorobromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

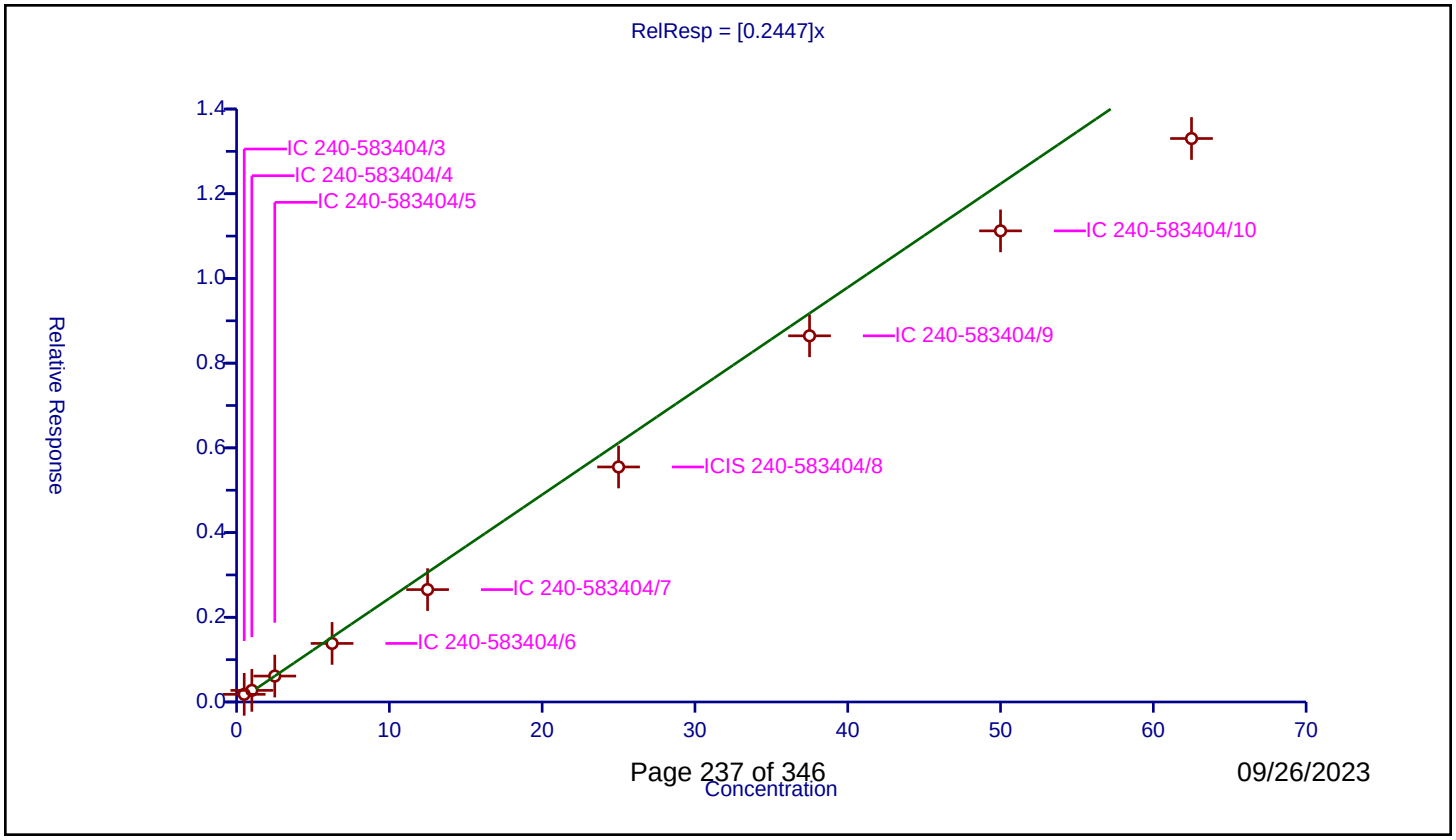
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2447 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 162000 |
| **Relative Standard Error:** | 19.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.937 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.180906 | 25.0 | 519883.0 | 0.361812 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.274344 | 25.0 | 528806.0 | 0.274344 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.612061 | 25.0 | 528011.0 | 0.244824 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.382776 | 25.0 | 536656.0 | 0.221244 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.653669 | 25.0 | 533582.0 | 0.212294 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 5.548665 | 25.0 | 549461.0 | 0.221947 | Y |
| 7 | IC 240-583404/9 | 37.5 | 8.645492 | 25.0 | 552149.0 | 0.230546 | Y |
| 8 | IC 240-583404/10 | 50.0 | 11.123094 | 25.0 | 558680.0 | 0.222462 | Y |
| 9 | IC 240-583404/11 | 62.5 | 13.303538 | 25.0 | 575595.0 | 0.212857 | Y |



## Calibration / 2-Chloroethyl vinyl ether

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

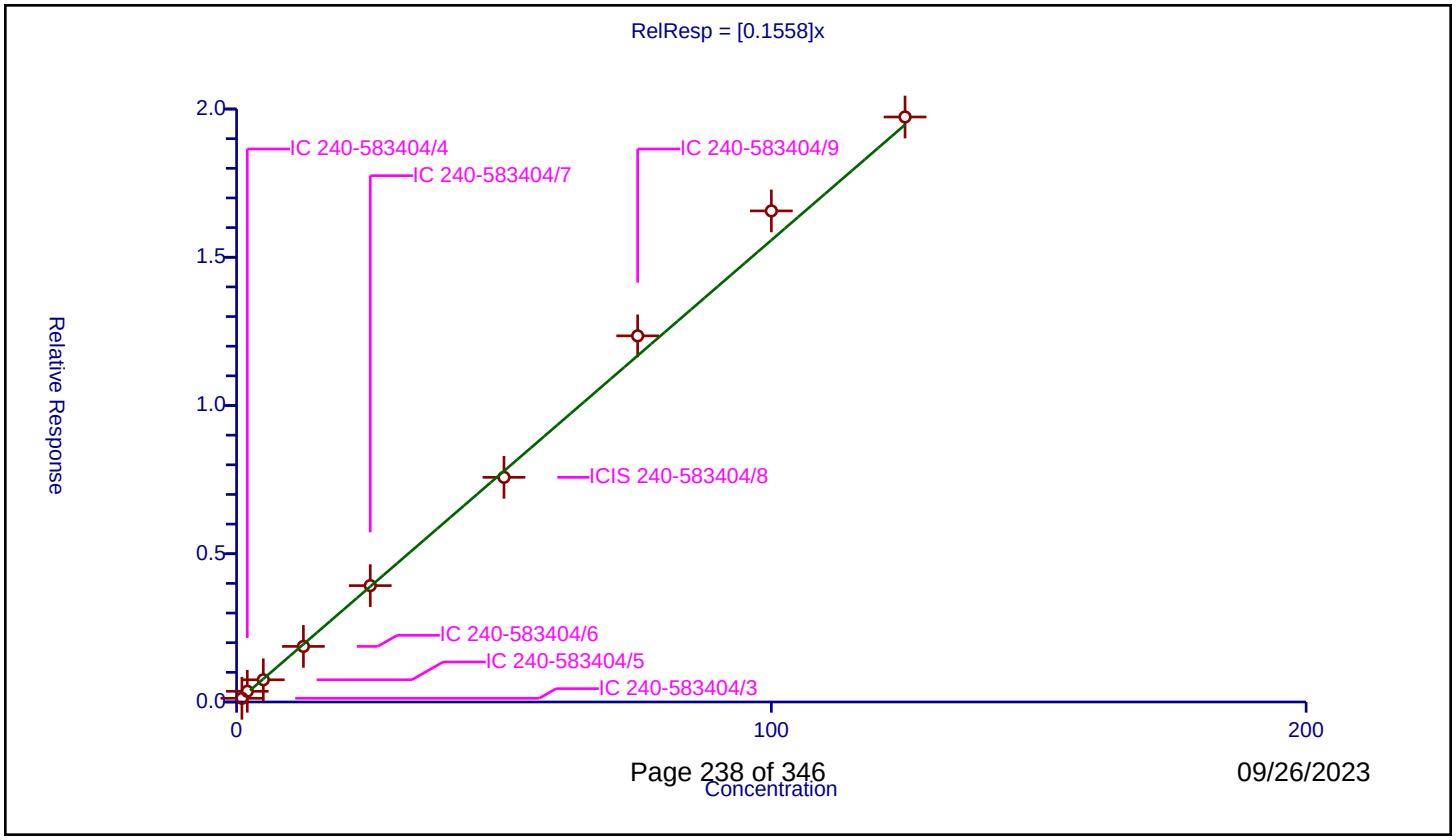
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1558 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 238000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 1.0 | 0.124788 | 25.0 | 519883.0 | 0.124788 | Y |
| 2 | IC 240-583404/4 | 2.0 | 0.36138 | 25.0 | 528806.0 | 0.18069 | Y |
| 3 | IC 240-583404/5 | 5.0 | 0.748706 | 25.0 | 528011.0 | 0.149741 | Y |
| 4 | IC 240-583404/6 | 12.5 | 1.874618 | 25.0 | 536656.0 | 0.149969 | Y |
| 5 | IC 240-583404/7 | 25.0 | 3.925029 | 25.0 | 533582.0 | 0.157001 | Y |
| 6 | ICIS 240-583404/8 | 50.0 | 7.577289 | 25.0 | 549461.0 | 0.151546 | Y |
| 7 | IC 240-583404/9 | 75.0 | 12.348569 | 25.0 | 552149.0 | 0.164648 | Y |
| 8 | IC 240-583404/10 | 100.0 | 16.563417 | 25.0 | 558680.0 | 0.165634 | Y |
| 9 | IC 240-583404/11 | 125.0 | 19.731191 | 25.0 | 575595.0 | 0.15785 | Y |



## Calibration / cis-1,3-Dichloropropene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

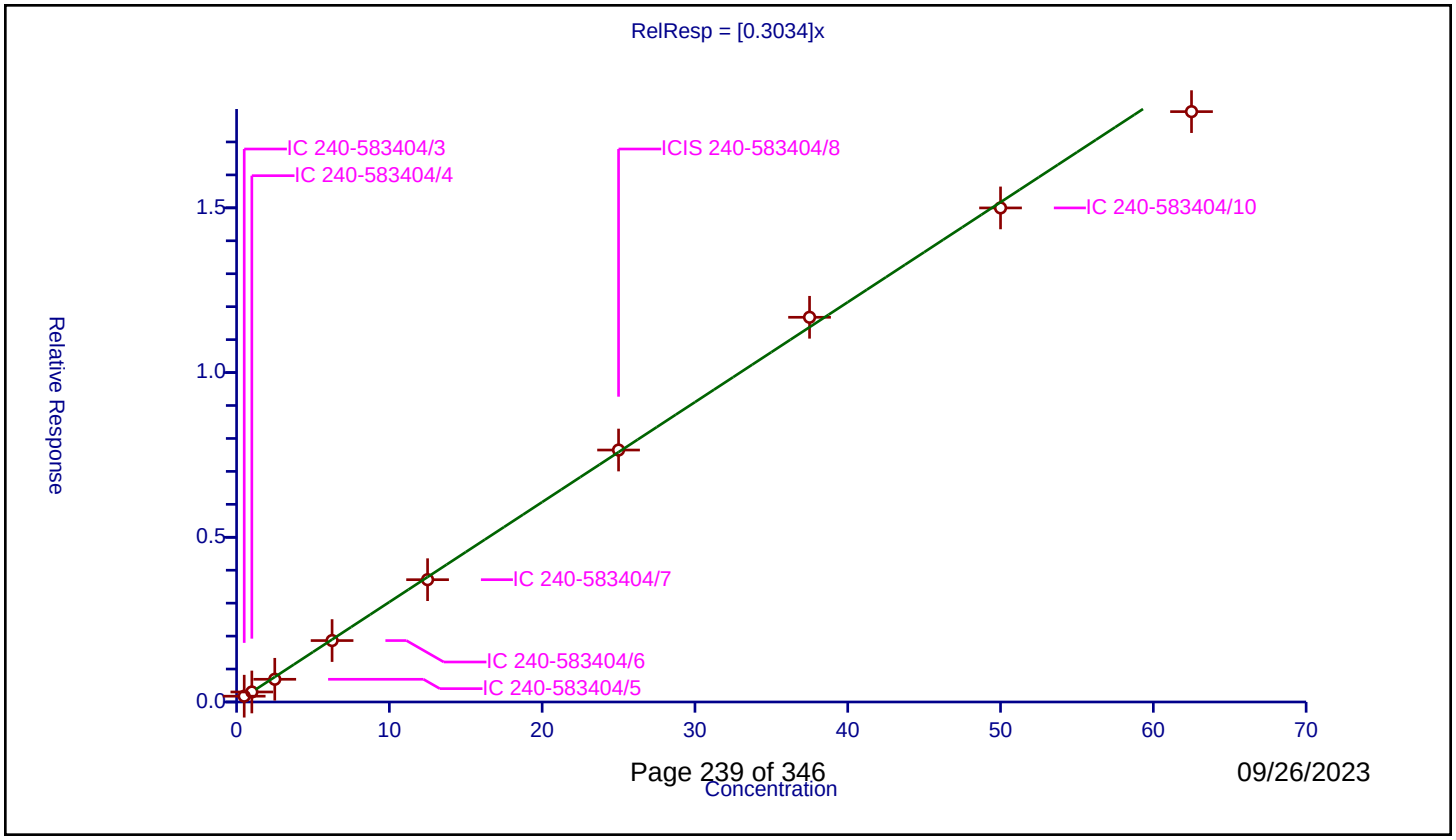
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3034 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 220000 |
| **Relative Standard Error:** | 6.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.175713 | 25.0 | 519883.0 | 0.351425 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.30427 | 25.0 | 528806.0 | 0.30427 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.688953 | 25.0 | 528011.0 | 0.275581 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.864556 | 25.0 | 536656.0 | 0.298329 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.712831 | 25.0 | 533582.0 | 0.297027 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 7.648541 | 25.0 | 549461.0 | 0.305942 | Y |
| 7 | IC 240-583404/9 | 37.5 | 11.678324 | 25.0 | 552149.0 | 0.311422 | Y |
| 8 | IC 240-583404/10 | 50.0 | 14.997807 | 25.0 | 558680.0 | 0.299956 | Y |
| 9 | IC 240-583404/11 | 62.5 | 17.920977 | 25.0 | 575595.0 | 0.286736 | Y |



## Calibration / 4-Methyl-2-pentanone (MIBK)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

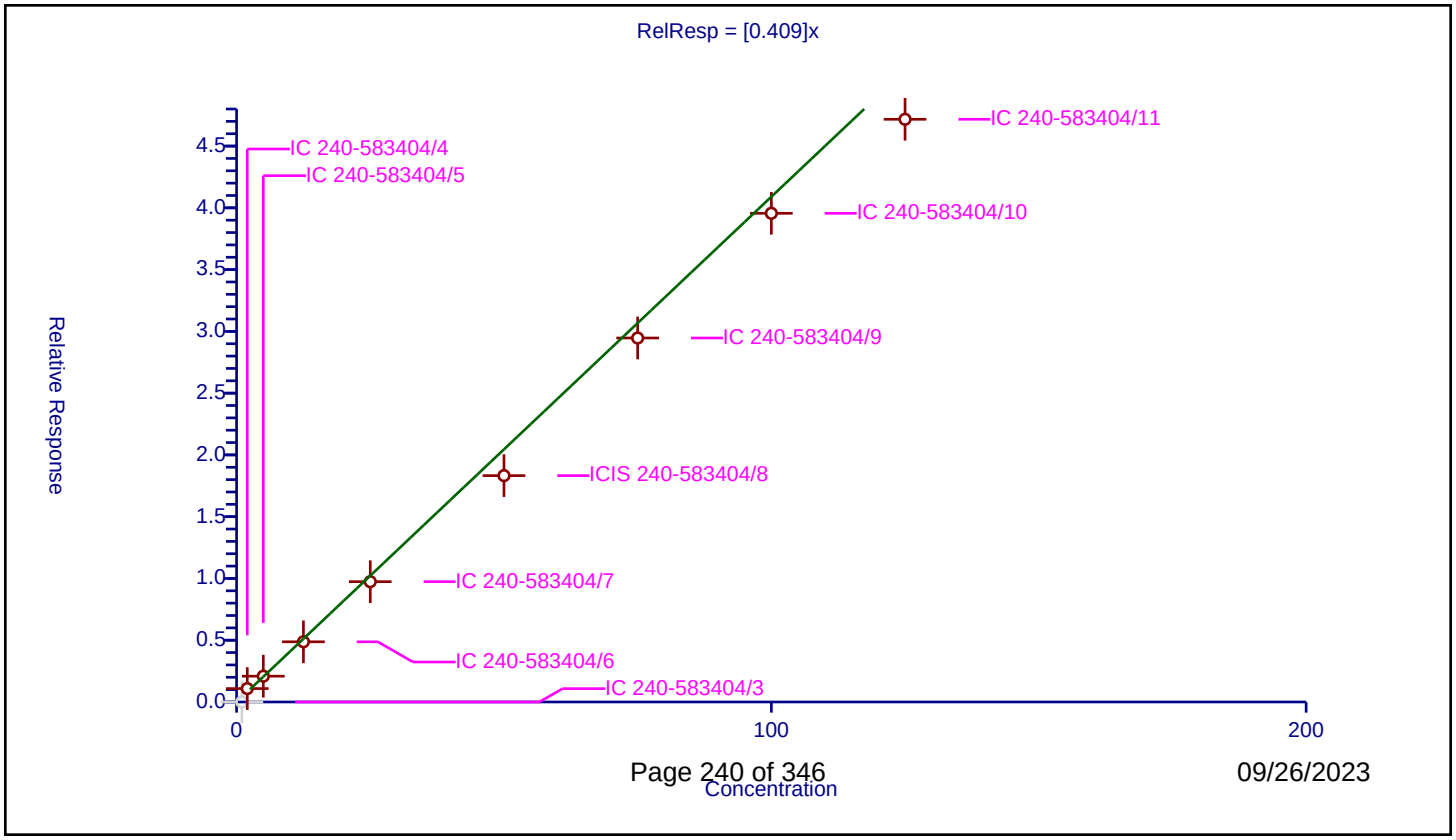
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.409 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 610000 |
| **Relative Standard Error:** | 13.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.971 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 1.0 | 0.0 | 25.0 | 519883.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 2.0 | 1.084661 | 25.0 | 528806.0 | 0.54233 | Y |
| 3 | IC 240-583404/5 | 5.0 | 2.088877 | 25.0 | 528011.0 | 0.417775 | Y |
| 4 | IC 240-583404/6 | 12.5 | 4.873327 | 25.0 | 536656.0 | 0.389866 | Y |
| 5 | IC 240-583404/7 | 25.0 | 9.739225 | 25.0 | 533582.0 | 0.389569 | Y |
| 6 | ICIS 240-583404/8 | 50.0 | 18.323184 | 25.0 | 549461.0 | 0.366464 | Y |
| 7 | IC 240-583404/9 | 75.0 | 29.463695 | 25.0 | 552149.0 | 0.392849 | Y |
| 8 | IC 240-583404/10 | 100.0 | 39.558737 | 25.0 | 558680.0 | 0.395587 | Y |
| 9 | IC 240-583404/11 | 125.0 | 47.168104 | 25.0 | 575595.0 | 0.377345 | Y |



## Calibration / Toluene-d8 (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

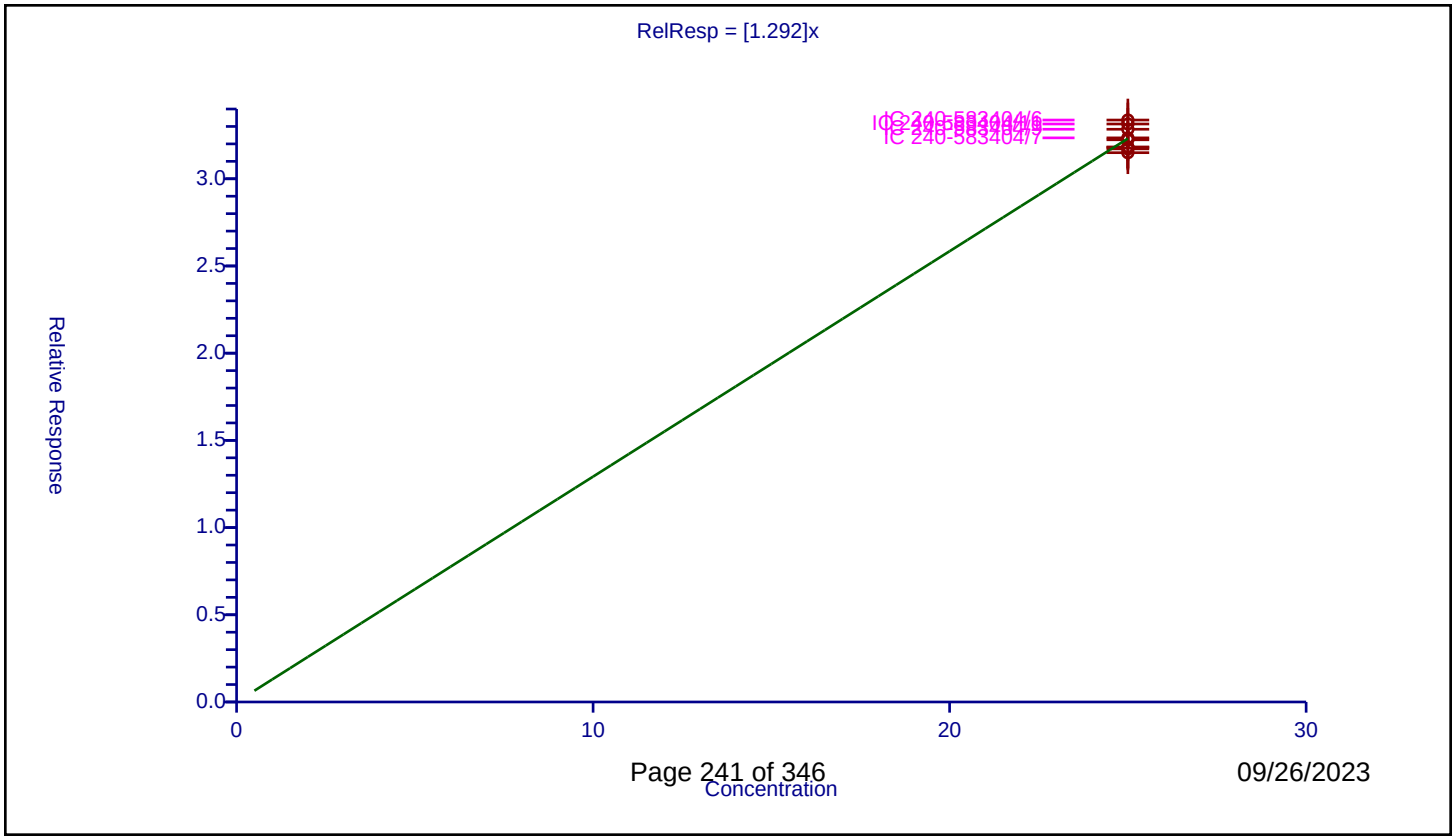
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.292 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 615000 |
| **Relative Standard Error:** | 2.1 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 25.0 | 31.812055 | 25.0 | 438458.0 | 1.272482 | Y |
| 2 | IC 240-583404/4 | 25.0 | 32.236039 | 25.0 | 449811.0 | 1.289442 | Y |
| 3 | IC 240-583404/5 | 25.0 | 31.817984 | 25.0 | 447878.0 | 1.272719 | Y |
| 4 | IC 240-583404/6 | 25.0 | 33.368708 | 25.0 | 434398.0 | 1.334748 | Y |
| 5 | IC 240-583404/7 | 25.0 | 32.34524 | 25.0 | 445707.0 | 1.29381 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 31.71382 | 25.0 | 456238.0 | 1.268553 | Y |
| 7 | IC 240-583404/9 | 25.0 | 32.839738 | 25.0 | 450656.0 | 1.31359 | Y |
| 8 | IC 240-583404/10 | 25.0 | 31.495794 | 25.0 | 467718.0 | 1.259832 | Y |
| 9 | IC 240-583404/11 | 25.0 | 33.141095 | 25.0 | 446147.0 | 1.325644 | Y |



## Calibration / Toluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

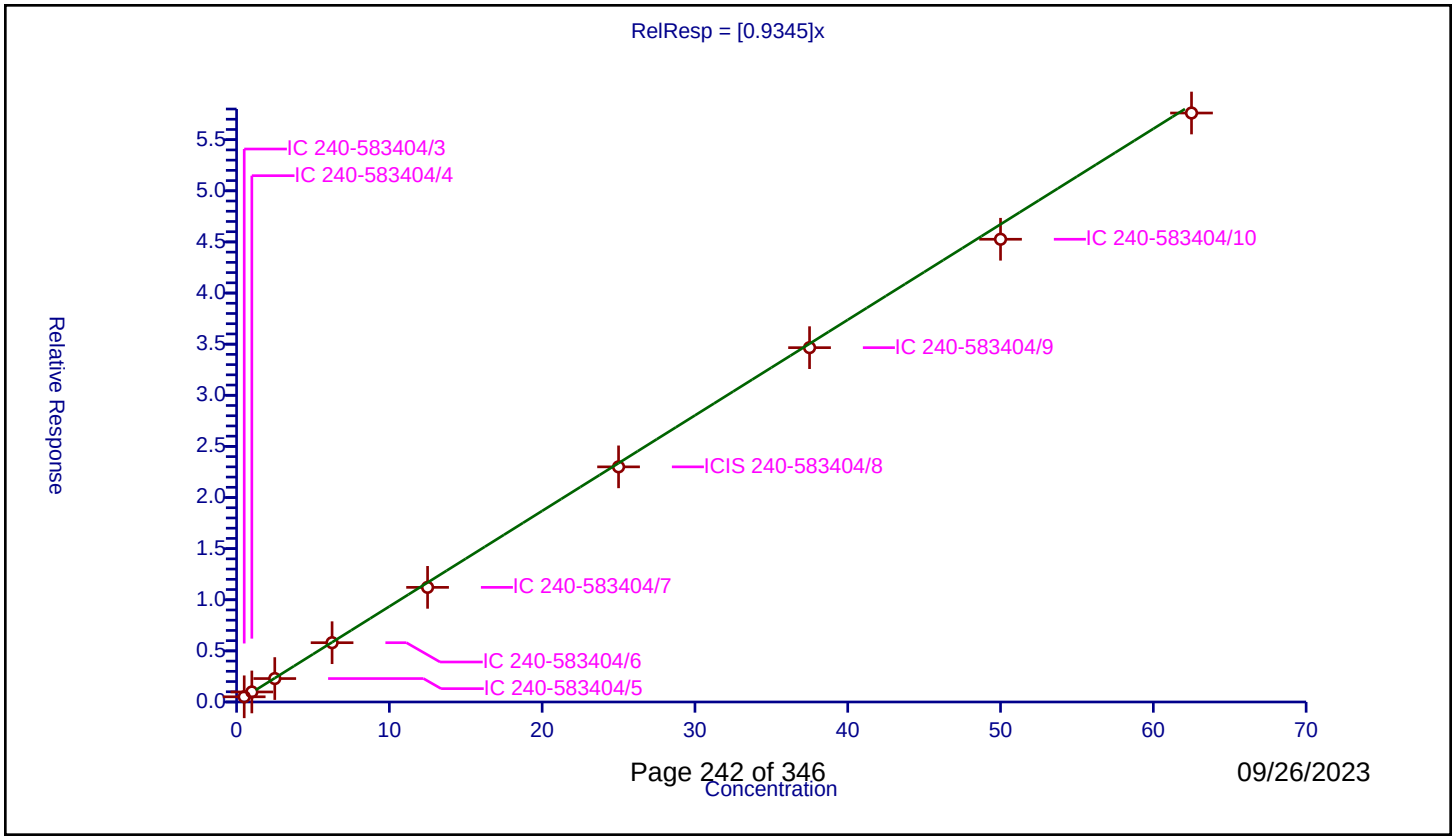
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.9345 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 547000 |
| **Relative Standard Error:** | 4.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.507574 | 25.0 | 438458.0 | 1.015149 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.981801 | 25.0 | 449811.0 | 0.981801 | Y |
| 3 | IC 240-583404/5 | 2.5 | 2.292644 | 25.0 | 447878.0 | 0.917058 | Y |
| 4 | IC 240-583404/6 | 6.25 | 5.799923 | 25.0 | 434398.0 | 0.927988 | Y |
| 5 | IC 240-583404/7 | 12.5 | 11.211569 | 25.0 | 445707.0 | 0.896926 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 22.999838 | 25.0 | 456238.0 | 0.919994 | Y |
| 7 | IC 240-583404/9 | 37.5 | 34.658531 | 25.0 | 450656.0 | 0.924227 | Y |
| 8 | IC 240-583404/10 | 50.0 | 45.261354 | 25.0 | 467718.0 | 0.905227 | Y |
| 9 | IC 240-583404/11 | 62.5 | 57.609375 | 25.0 | 446147.0 | 0.92175 | Y |



## Calibration / trans-1,3-Dichloropropene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

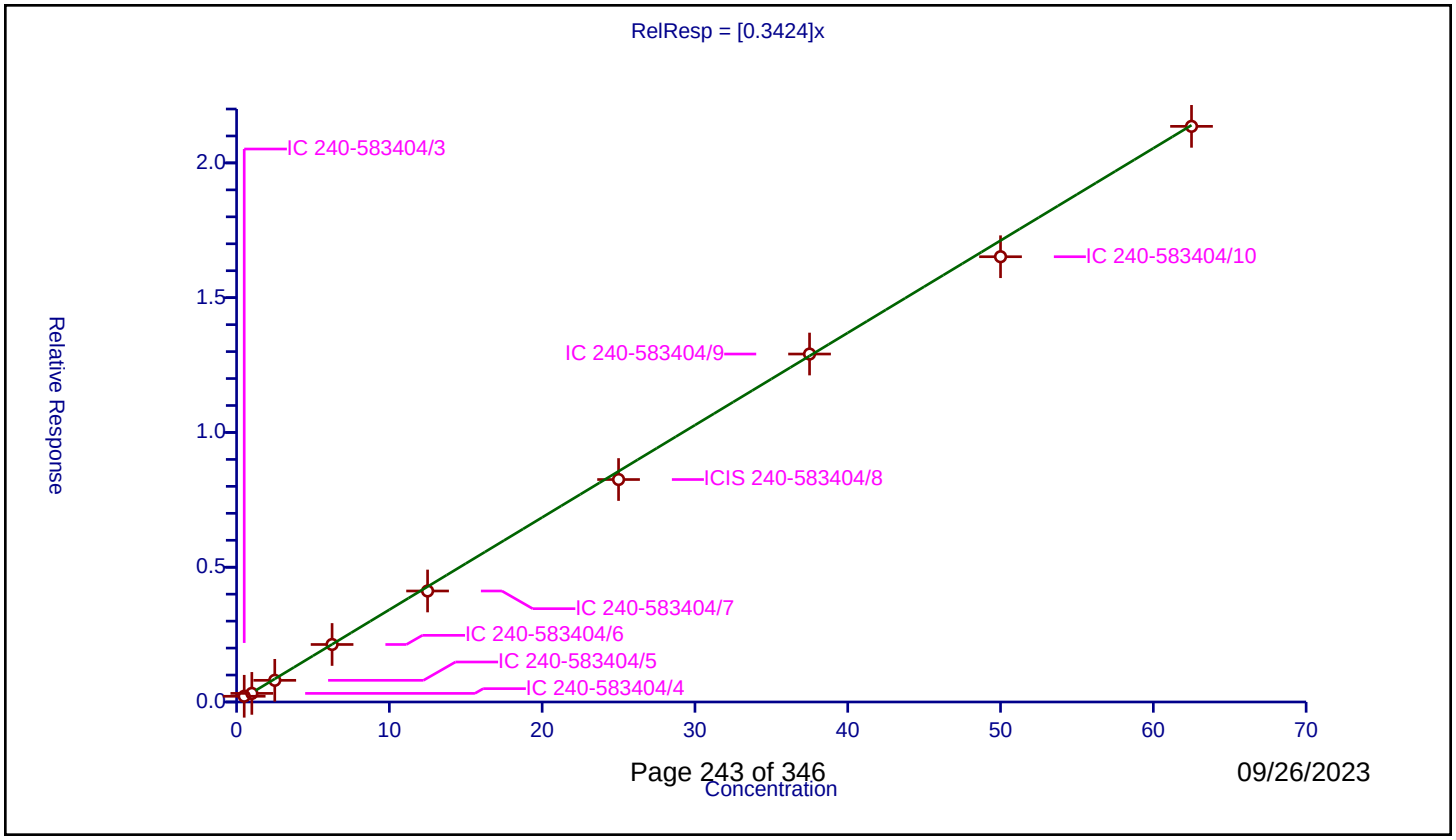
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3424 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 201000 |
| **Relative Standard Error:** | 9.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.211936 | 25.0 | 438458.0 | 0.423872 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.318634 | 25.0 | 449811.0 | 0.318634 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.804014 | 25.0 | 447878.0 | 0.321605 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.133988 | 25.0 | 434398.0 | 0.341438 | Y |
| 5 | IC 240-583404/7 | 12.5 | 4.11812 | 25.0 | 445707.0 | 0.32945 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 8.254025 | 25.0 | 456238.0 | 0.330161 | Y |
| 7 | IC 240-583404/9 | 37.5 | 12.909403 | 25.0 | 450656.0 | 0.344251 | Y |
| 8 | IC 240-583404/10 | 50.0 | 16.519997 | 25.0 | 467718.0 | 0.3304 | Y |
| 9 | IC 240-583404/11 | 62.5 | 21.356414 | 25.0 | 446147.0 | 0.341703 | Y |



## Calibration / Ethyl methacrylate

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

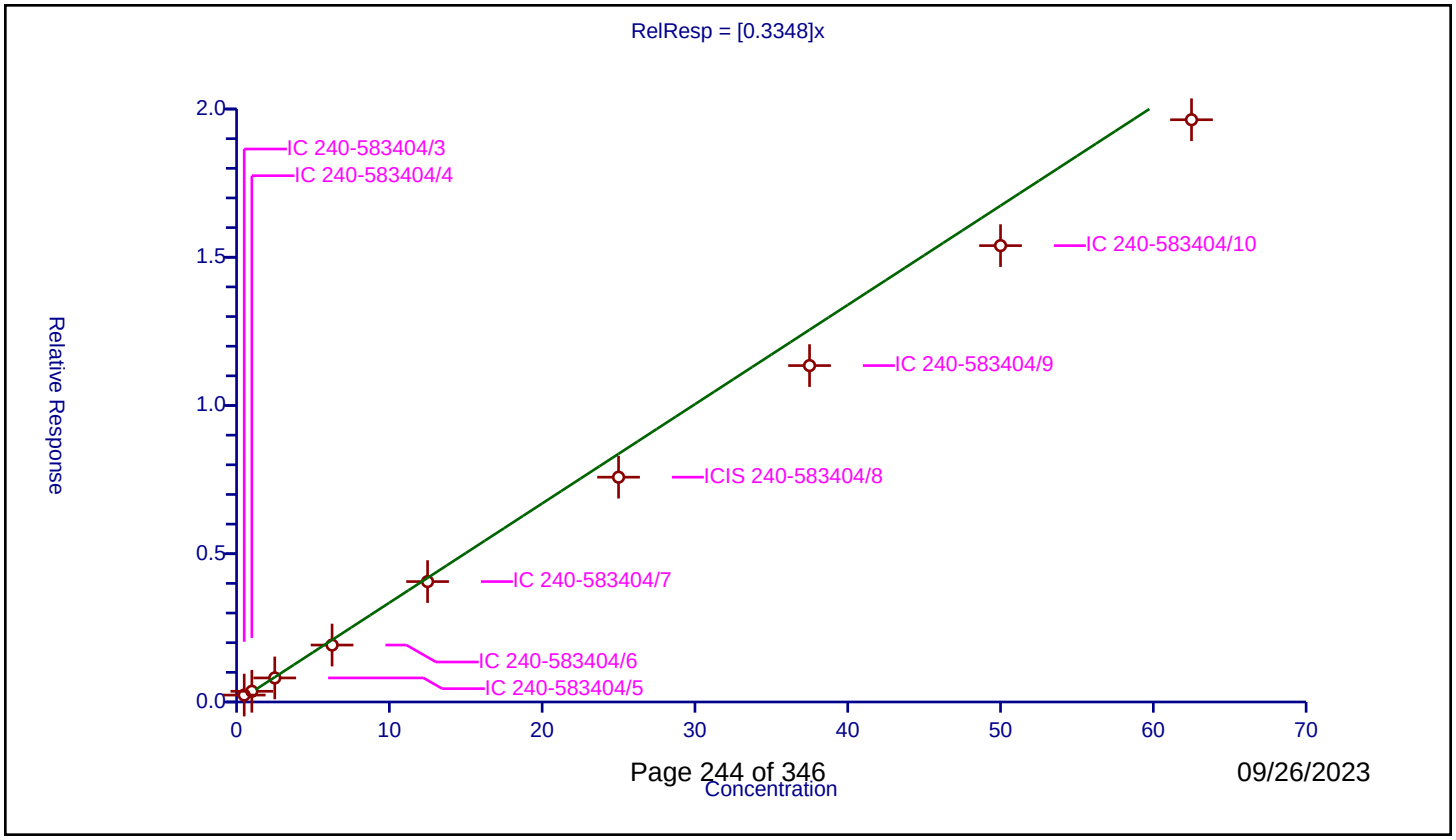
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3348 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 185000 |
| **Relative Standard Error:** | 15.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.961 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.23366 | 25.0 | 438458.0 | 0.46732 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.360985 | 25.0 | 449811.0 | 0.360985 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.811437 | 25.0 | 447878.0 | 0.324575 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.920762 | 25.0 | 434398.0 | 0.307322 | Y |
| 5 | IC 240-583404/7 | 12.5 | 4.061244 | 25.0 | 445707.0 | 0.3249 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 7.582665 | 25.0 | 456238.0 | 0.303307 | Y |
| 7 | IC 240-583404/9 | 37.5 | 11.346681 | 25.0 | 450656.0 | 0.302578 | Y |
| 8 | IC 240-583404/10 | 50.0 | 15.392127 | 25.0 | 467718.0 | 0.307843 | Y |
| 9 | IC 240-583404/11 | 62.5 | 19.638202 | 25.0 | 446147.0 | 0.314211 | Y |



## Calibration / 1,1,2-Trichloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

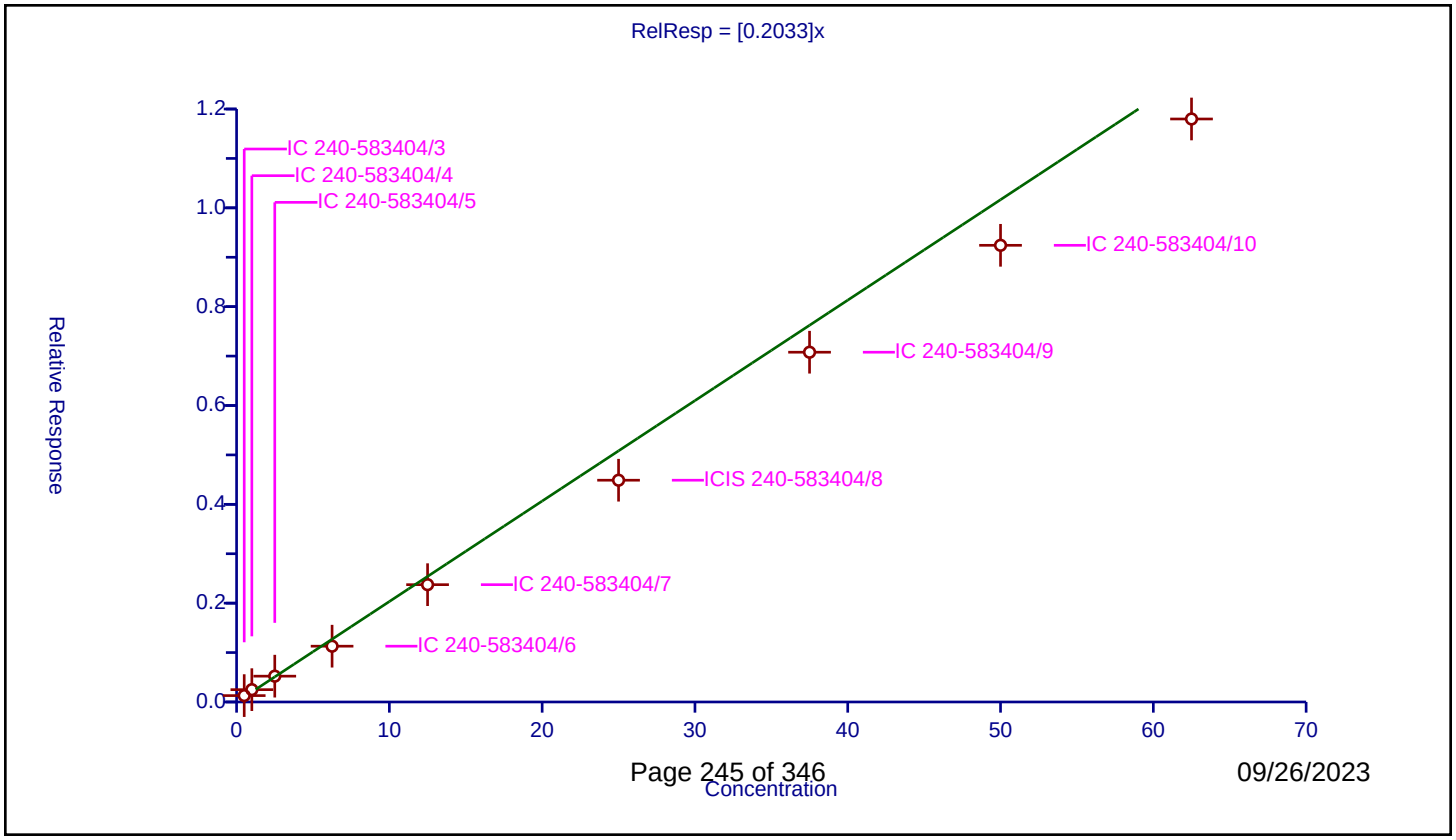
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2033 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 112000 |
| **Relative Standard Error:** | 14.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.967 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.129146 | 25.0 | 438458.0 | 0.258292 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.249716 | 25.0 | 449811.0 | 0.249716 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.522743 | 25.0 | 447878.0 | 0.209097 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.129437 | 25.0 | 434398.0 | 0.18071 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.374262 | 25.0 | 445707.0 | 0.189941 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.488118 | 25.0 | 456238.0 | 0.179525 | Y |
| 7 | IC 240-583404/9 | 37.5 | 7.078182 | 25.0 | 450656.0 | 0.188752 | Y |
| 8 | IC 240-583404/10 | 50.0 | 9.24168 | 25.0 | 467718.0 | 0.184834 | Y |
| 9 | IC 240-583404/11 | 62.5 | 11.798409 | 25.0 | 446147.0 | 0.188775 | Y |



## Calibration / Tetrachloroethene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

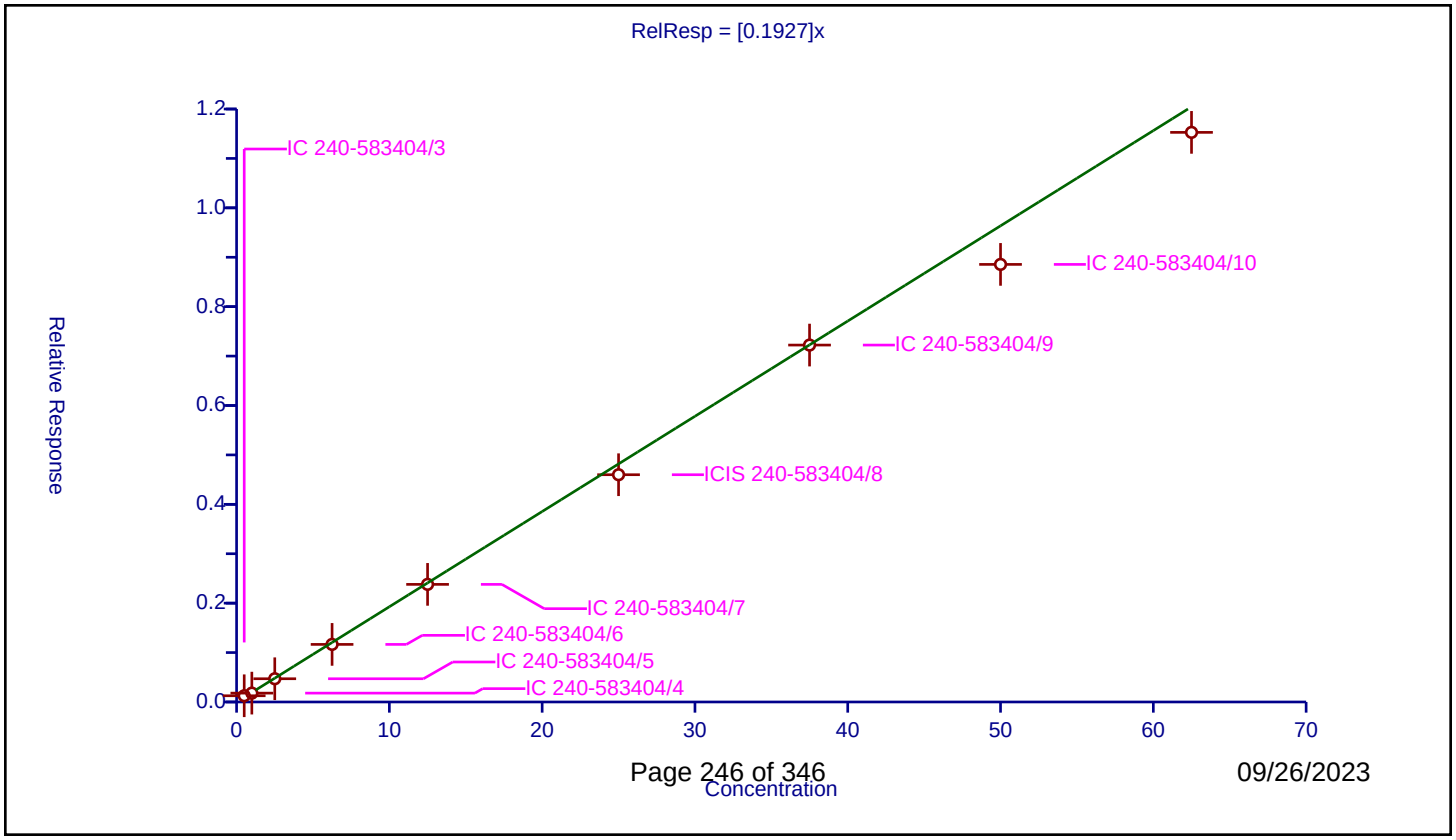
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1927 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 110000 |
| **Relative Standard Error:** | 11.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.980 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.125953 | 25.0 | 438458.0 | 0.251906 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.17952 | 25.0 | 449811.0 | 0.17952 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.470106 | 25.0 | 447878.0 | 0.188042 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.165176 | 25.0 | 434398.0 | 0.186428 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.380319 | 25.0 | 445707.0 | 0.190426 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.599409 | 25.0 | 456238.0 | 0.183976 | Y |
| 7 | IC 240-583404/9 | 37.5 | 7.223026 | 25.0 | 450656.0 | 0.192614 | Y |
| 8 | IC 240-583404/10 | 50.0 | 8.855336 | 25.0 | 467718.0 | 0.177107 | Y |
| 9 | IC 240-583404/11 | 62.5 | 11.527254 | 25.0 | 446147.0 | 0.184436 | Y |



## Calibration / 1,3-Dichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

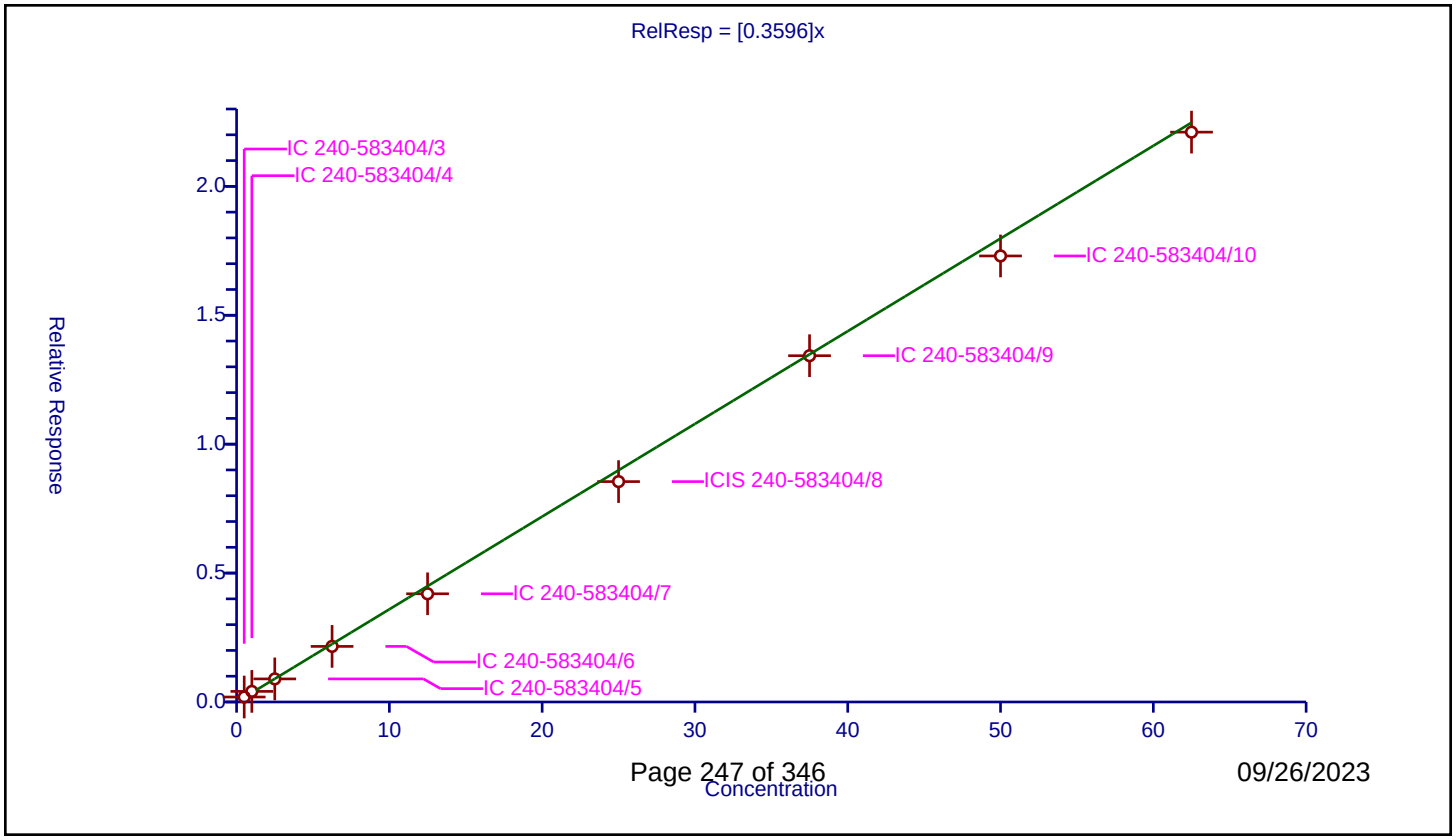
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3596 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 209000 |
| **Relative Standard Error:** | 6.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.193348 | 25.0 | 438458.0 | 0.386696 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.410728 | 25.0 | 449811.0 | 0.410728 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.895221 | 25.0 | 447878.0 | 0.358089 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.156317 | 25.0 | 434398.0 | 0.345011 | Y |
| 5 | IC 240-583404/7 | 12.5 | 4.196647 | 25.0 | 445707.0 | 0.335732 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 8.548499 | 25.0 | 456238.0 | 0.34194 | Y |
| 7 | IC 240-583404/9 | 37.5 | 13.431753 | 25.0 | 450656.0 | 0.35818 | Y |
| 8 | IC 240-583404/10 | 50.0 | 17.30113 | 25.0 | 467718.0 | 0.346023 | Y |
| 9 | IC 240-583404/11 | 62.5 | 22.102749 | 25.0 | 446147.0 | 0.353644 | Y |



## Calibration / 2-Hexanone

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

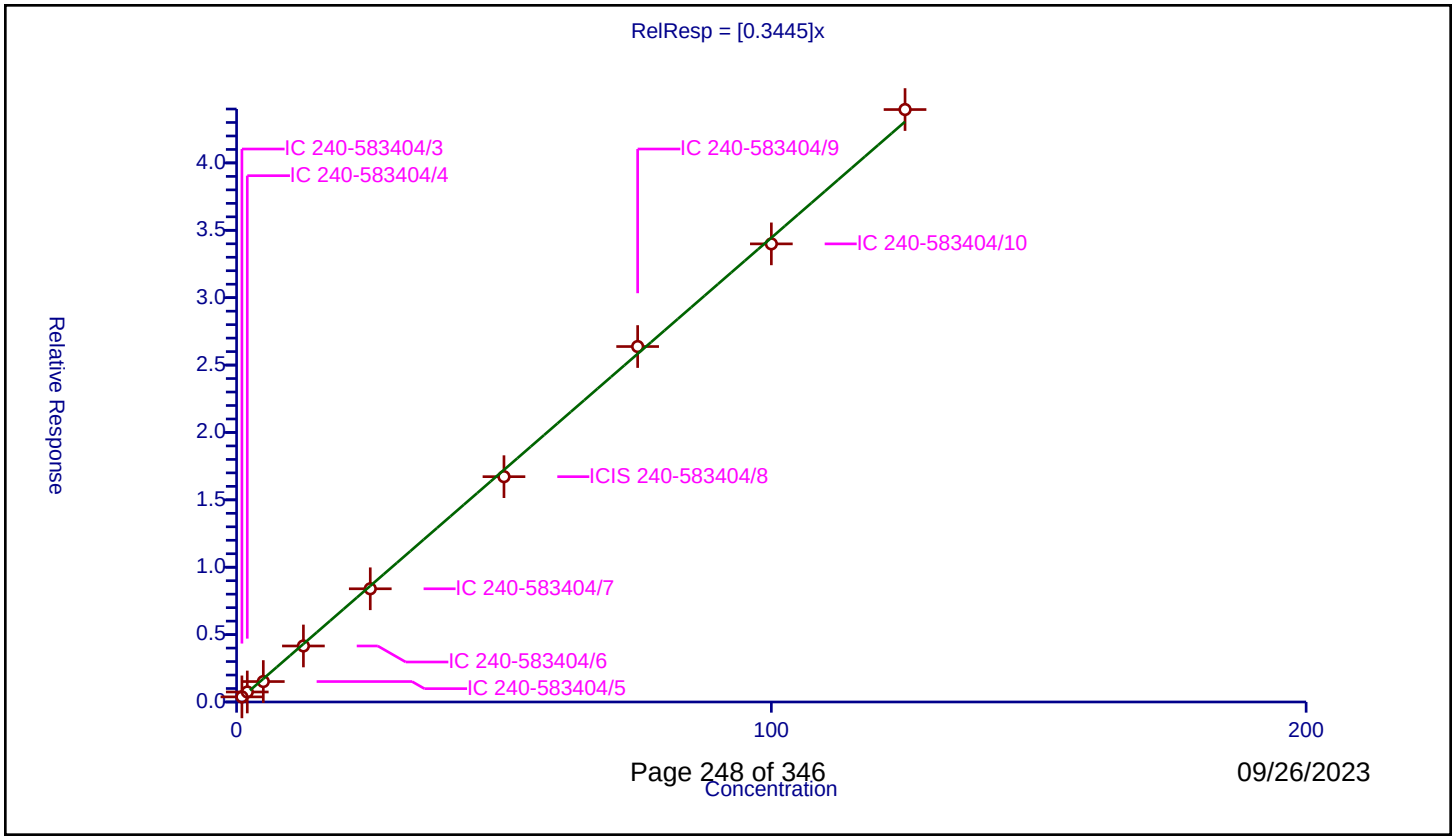
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3445 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 413000 |
| **Relative Standard Error:** | 6.6 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 1.0 | 0.379341 | 25.0 | 438458.0 | 0.379341 | Y |
| 2 | IC 240-583404/4 | 2.0 | 0.742923 | 25.0 | 449811.0 | 0.371462 | Y |
| 3 | IC 240-583404/5 | 5.0 | 1.516373 | 25.0 | 447878.0 | 0.303275 | Y |
| 4 | IC 240-583404/6 | 12.5 | 4.156499 | 25.0 | 434398.0 | 0.33252 | Y |
| 5 | IC 240-583404/7 | 25.0 | 8.399857 | 25.0 | 445707.0 | 0.335994 | Y |
| 6 | ICIS 240-583404/8 | 50.0 | 16.719015 | 25.0 | 456238.0 | 0.33438 | Y |
| 7 | IC 240-583404/9 | 75.0 | 26.375772 | 25.0 | 450656.0 | 0.351677 | Y |
| 8 | IC 240-583404/10 | 100.0 | 33.994255 | 25.0 | 467718.0 | 0.339943 | Y |
| 9 | IC 240-583404/11 | 125.0 | 43.961183 | 25.0 | 446147.0 | 0.351689 | Y |



## Calibration / Chlorodibromomethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

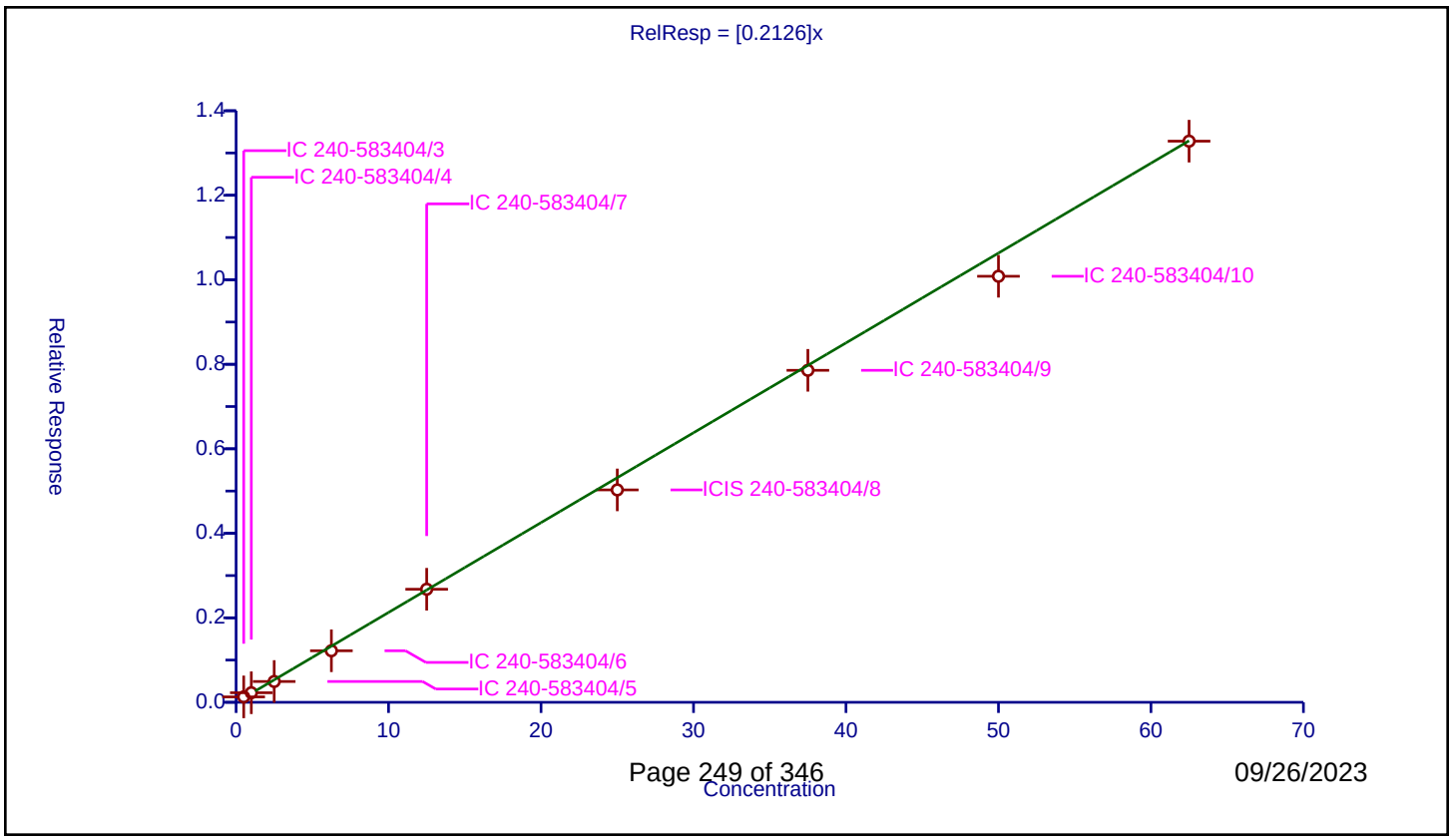
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2126 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 124000 |
| **Relative Standard Error:** | 9.0 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.128176 | 25.0 | 438458.0 | 0.256353 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.226206 | 25.0 | 449811.0 | 0.226206 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.49288 | 25.0 | 447878.0 | 0.197152 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.219792 | 25.0 | 434398.0 | 0.195167 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.676198 | 25.0 | 445707.0 | 0.214096 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 5.026872 | 25.0 | 456238.0 | 0.201075 | Y |
| 7 | IC 240-583404/9 | 37.5 | 7.857213 | 25.0 | 450656.0 | 0.209526 | Y |
| 8 | IC 240-583404/10 | 50.0 | 10.082785 | 25.0 | 467718.0 | 0.201656 | Y |
| 9 | IC 240-583404/11 | 62.5 | 13.2806 | 25.0 | 446147.0 | 0.21249 | Y |



## Calibration / Ethylene Dibromide

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

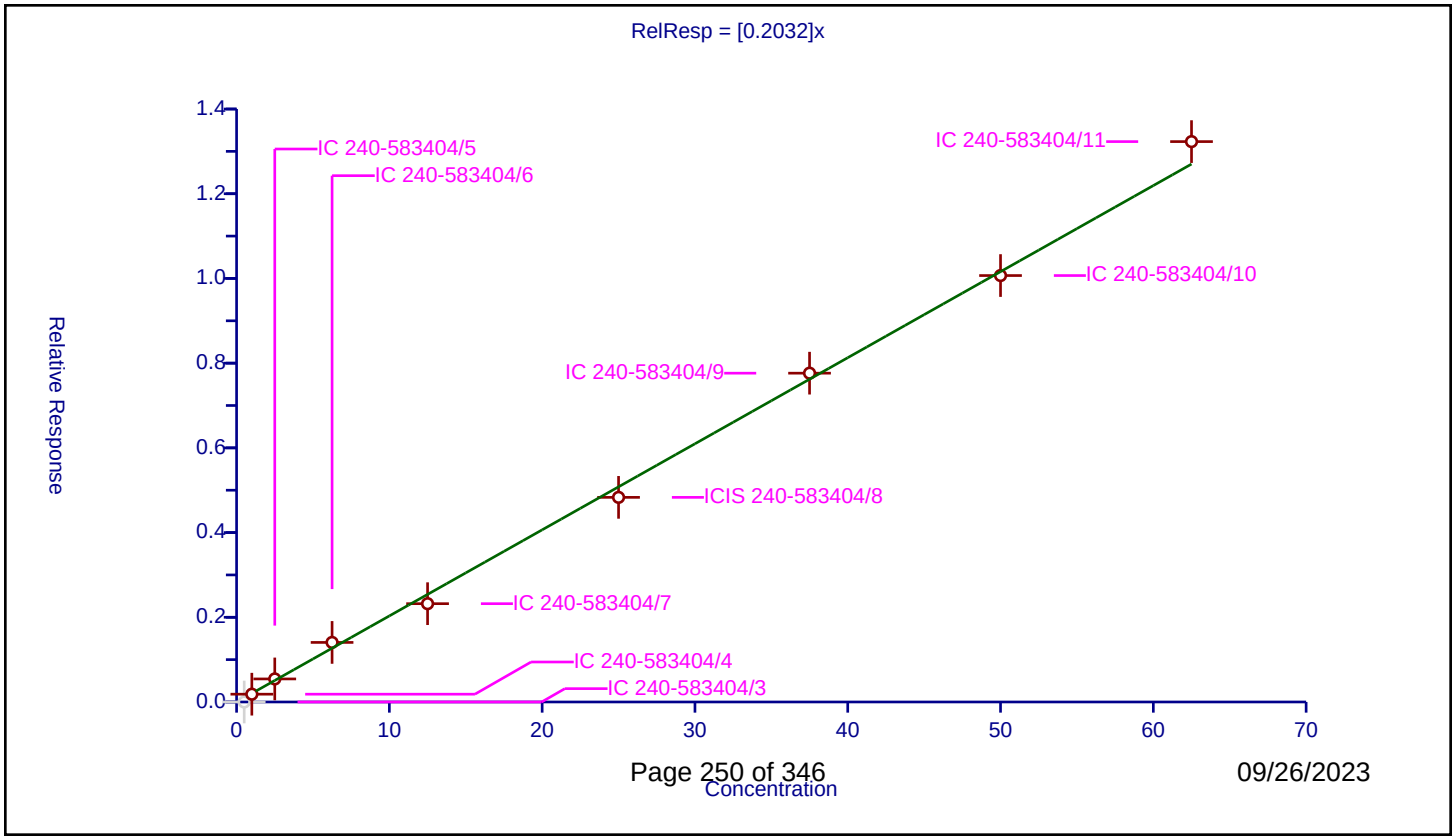
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2032 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 131000 |
| **Relative Standard Error:** | 7.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 438458.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.184022 | 25.0 | 449811.0 | 0.184022 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.544121 | 25.0 | 447878.0 | 0.217649 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.406372 | 25.0 | 434398.0 | 0.225019 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.320807 | 25.0 | 445707.0 | 0.185665 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.831031 | 25.0 | 456238.0 | 0.193241 | Y |
| 7 | IC 240-583404/9 | 37.5 | 7.762961 | 25.0 | 450656.0 | 0.207012 | Y |
| 8 | IC 240-583404/10 | 50.0 | 10.068139 | 25.0 | 467718.0 | 0.201363 | Y |
| 9 | IC 240-583404/11 | 62.5 | 13.230561 | 25.0 | 446147.0 | 0.211689 | Y |



## Calibration / Chlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

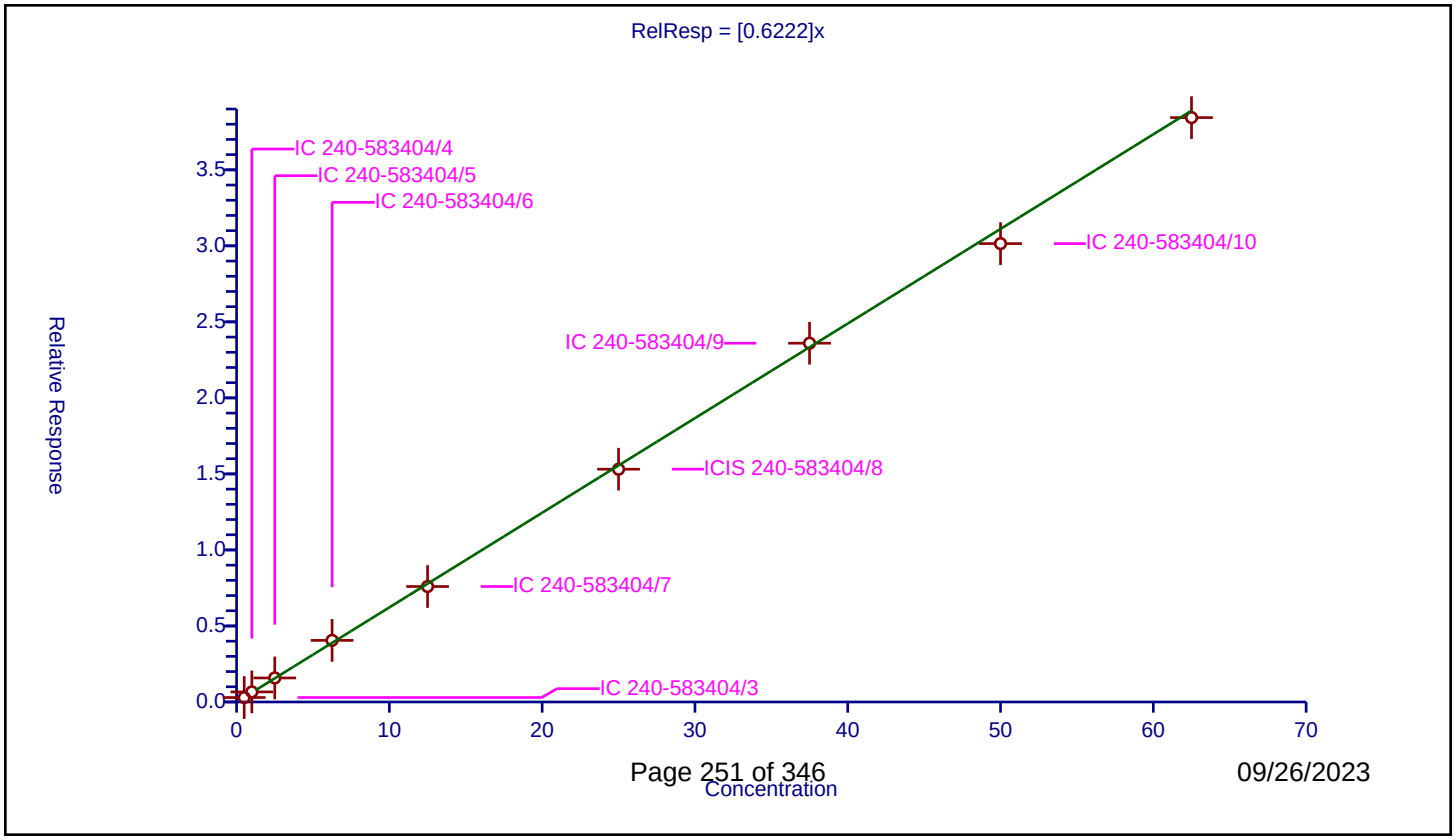
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6222 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 366000 |
| **Relative Standard Error:** | 3.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.293871 | 25.0 | 438458.0 | 0.587742 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.664057 | 25.0 | 449811.0 | 0.664057 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.581737 | 25.0 | 447878.0 | 0.632695 | Y |
| 4 | IC 240-583404/6 | 6.25 | 4.052505 | 25.0 | 434398.0 | 0.648401 | Y |
| 5 | IC 240-583404/7 | 12.5 | 7.595461 | 25.0 | 445707.0 | 0.607637 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 15.310211 | 25.0 | 456238.0 | 0.612408 | Y |
| 7 | IC 240-583404/9 | 37.5 | 23.598321 | 25.0 | 450656.0 | 0.629289 | Y |
| 8 | IC 240-583404/10 | 50.0 | 30.14792 | 25.0 | 467718.0 | 0.602958 | Y |
| 9 | IC 240-583404/11 | 62.5 | 38.435426 | 25.0 | 446147.0 | 0.614967 | Y |



## Calibration / Ethylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

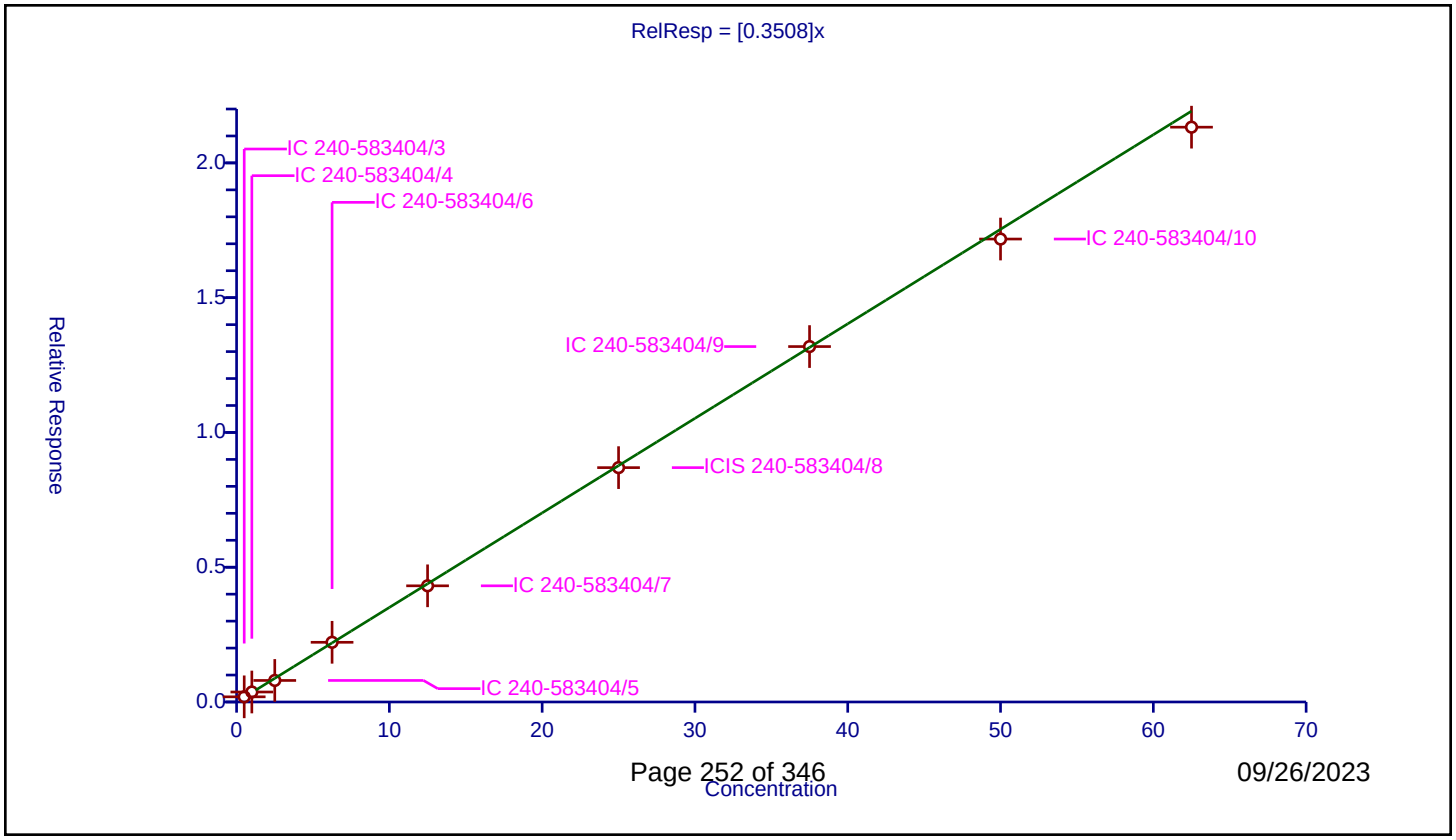
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3508 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 205000 |
| **Relative Standard Error:** | 5.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.191752 | 25.0 | 438458.0 | 0.383503 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.370267 | 25.0 | 449811.0 | 0.370267 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.799269 | 25.0 | 447878.0 | 0.319708 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.214904 | 25.0 | 434398.0 | 0.354385 | Y |
| 5 | IC 240-583404/7 | 12.5 | 4.310455 | 25.0 | 445707.0 | 0.344836 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 8.69464 | 25.0 | 456238.0 | 0.347786 | Y |
| 7 | IC 240-583404/9 | 37.5 | 13.187165 | 25.0 | 450656.0 | 0.351658 | Y |
| 8 | IC 240-583404/10 | 50.0 | 17.175574 | 25.0 | 467718.0 | 0.343511 | Y |
| 9 | IC 240-583404/11 | 62.5 | 21.326323 | 25.0 | 446147.0 | 0.341221 | Y |



## Calibration / 1,1,1,2-Tetrachloroethane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

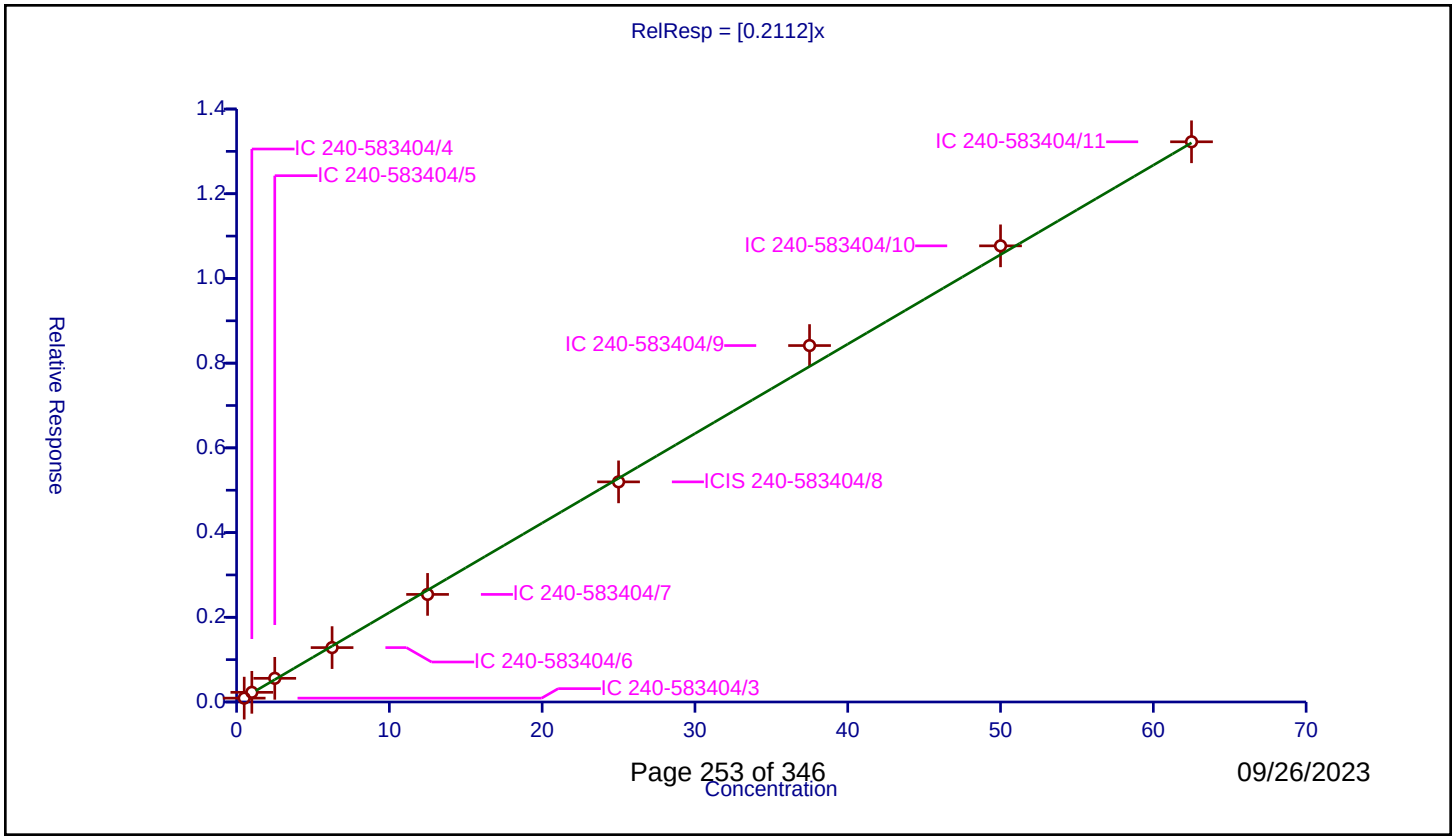
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.2112 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 128000 |
| **Relative Standard Error:** | 6.7 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.090773 | 25.0 | 438458.0 | 0.181545 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.22804 | 25.0 | 449811.0 | 0.22804 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.558746 | 25.0 | 447878.0 | 0.223498 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.284364 | 25.0 | 434398.0 | 0.205498 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.54029 | 25.0 | 445707.0 | 0.203223 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 5.197233 | 25.0 | 456238.0 | 0.207889 | Y |
| 7 | IC 240-583404/9 | 37.5 | 8.415343 | 25.0 | 450656.0 | 0.224409 | Y |
| 8 | IC 240-583404/10 | 50.0 | 10.76963 | 25.0 | 467718.0 | 0.215393 | Y |
| 9 | IC 240-583404/11 | 62.5 | 13.226246 | 25.0 | 446147.0 | 0.21162 | Y |



## Calibration / m-Xylene & p-Xylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

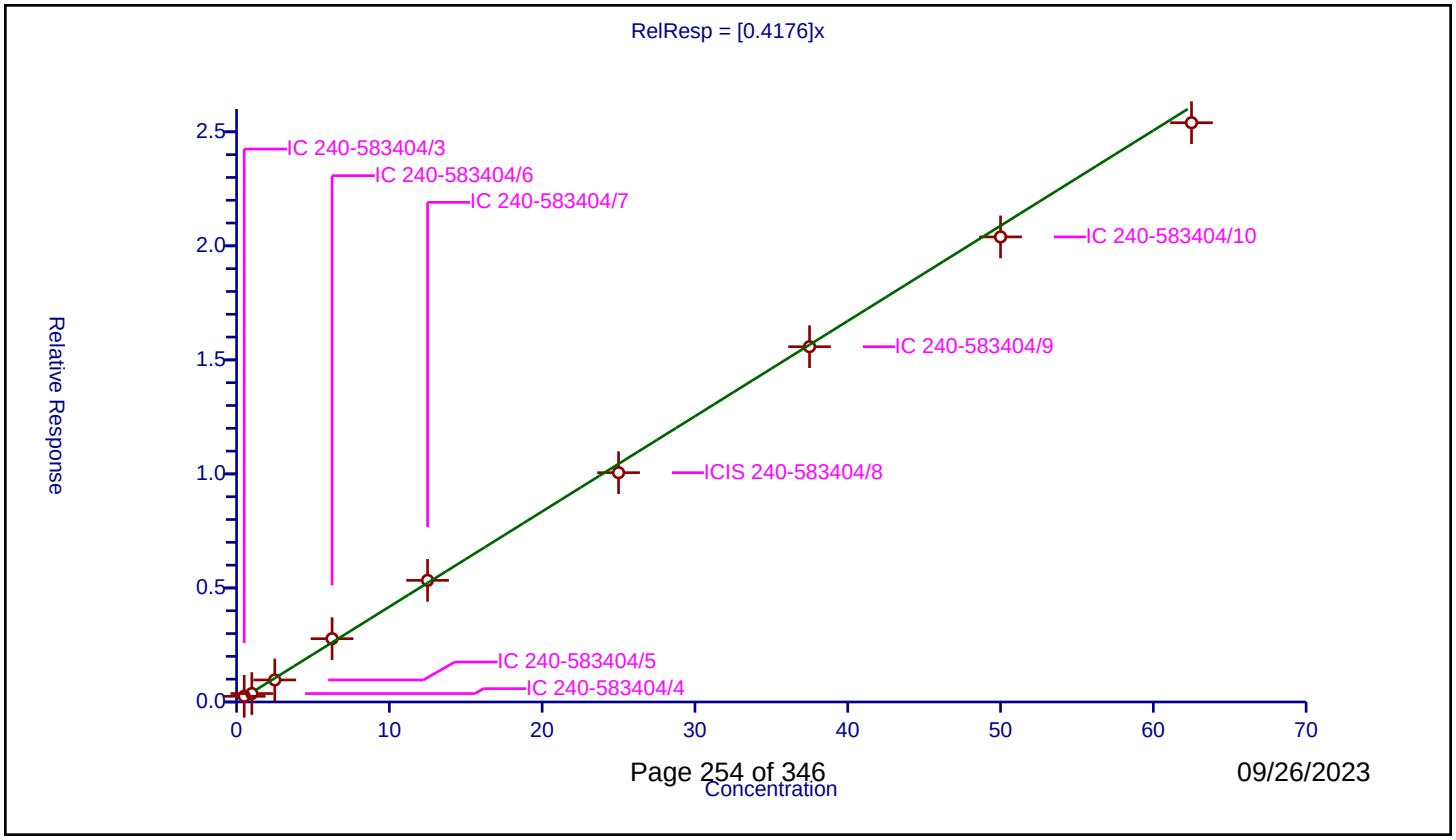
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4176 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 244000 |
| **Relative Standard Error:** | 8.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.989 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.249682 | 25.0 | 438458.0 | 0.499364 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.3701 | 25.0 | 449811.0 | 0.3701 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.966502 | 25.0 | 447878.0 | 0.386601 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.775565 | 25.0 | 434398.0 | 0.44409 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.333212 | 25.0 | 445707.0 | 0.426657 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 10.054621 | 25.0 | 456238.0 | 0.402185 | Y |
| 7 | IC 240-583404/9 | 37.5 | 15.578623 | 25.0 | 450656.0 | 0.41543 | Y |
| 8 | IC 240-583404/10 | 50.0 | 20.392576 | 25.0 | 467718.0 | 0.407852 | Y |
| 9 | IC 240-583404/11 | 62.5 | 25.398972 | 25.0 | 446147.0 | 0.406384 | Y |



## Calibration / o-Xylene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

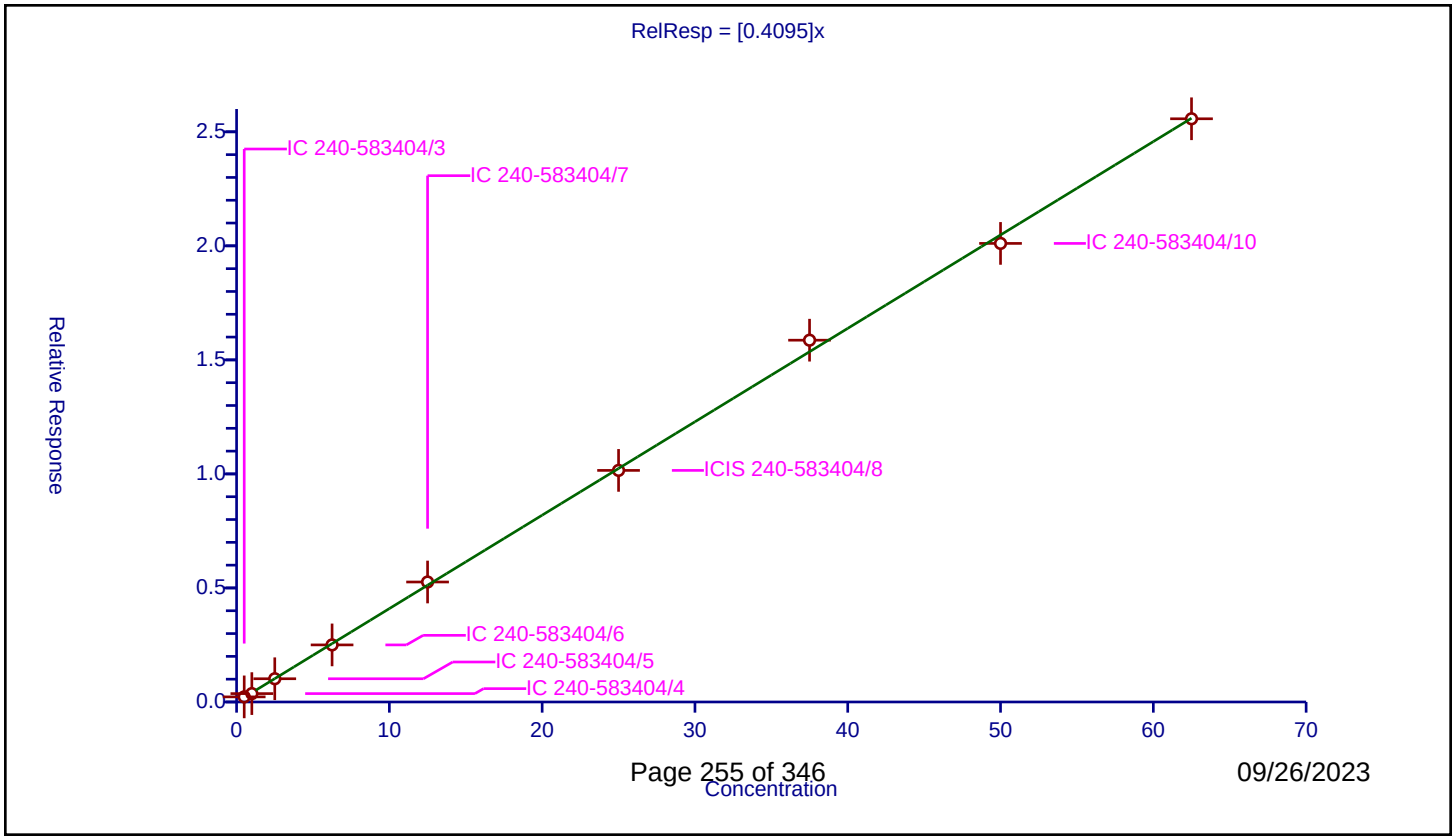
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4095 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 244000 |
| **Relative Standard Error:** | 5.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.22448 | 25.0 | 438458.0 | 0.44896 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.367654 | 25.0 | 449811.0 | 0.367654 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.01886 | 25.0 | 447878.0 | 0.407544 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.502256 | 25.0 | 434398.0 | 0.400361 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.260575 | 25.0 | 445707.0 | 0.420846 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 10.154623 | 25.0 | 456238.0 | 0.406185 | Y |
| 7 | IC 240-583404/9 | 37.5 | 15.86404 | 25.0 | 450656.0 | 0.423041 | Y |
| 8 | IC 240-583404/10 | 50.0 | 20.107362 | 25.0 | 467718.0 | 0.402147 | Y |
| 9 | IC 240-583404/11 | 62.5 | 25.571729 | 25.0 | 446147.0 | 0.409148 | Y |



## Calibration / Styrene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

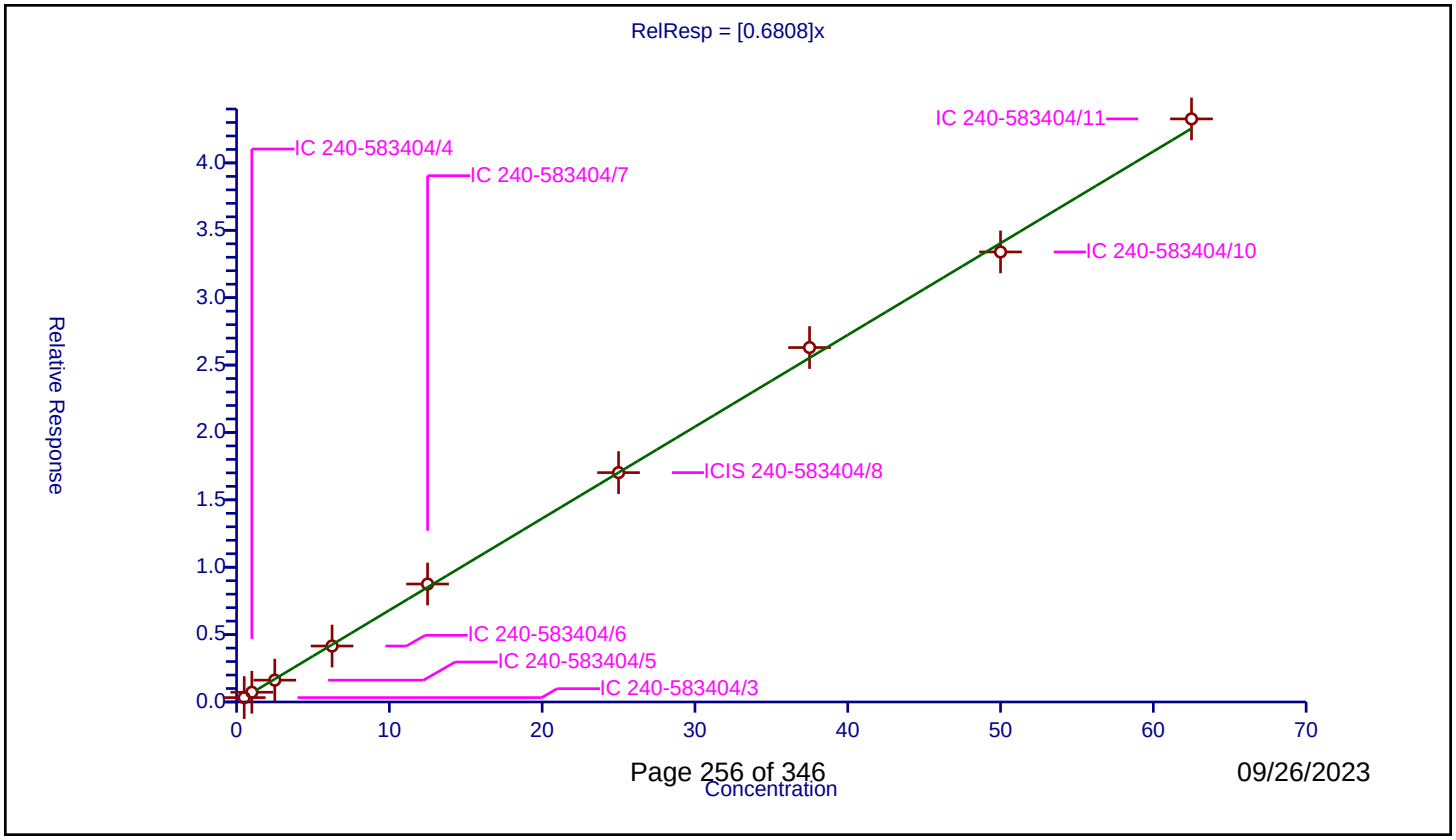
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.6808 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 409000 |
| **Relative Standard Error:** | 3.7 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.998 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.324775 | 25.0 | 438458.0 | 0.649549 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.723137 | 25.0 | 449811.0 | 0.723137 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.620419 | 25.0 | 447878.0 | 0.648168 | Y |
| 4 | IC 240-583404/6 | 6.25 | 4.15178 | 25.0 | 434398.0 | 0.664285 | Y |
| 5 | IC 240-583404/7 | 12.5 | 8.752555 | 25.0 | 445707.0 | 0.700204 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 17.019681 | 25.0 | 456238.0 | 0.680787 | Y |
| 7 | IC 240-583404/9 | 37.5 | 26.300216 | 25.0 | 450656.0 | 0.701339 | Y |
| 8 | IC 240-583404/10 | 50.0 | 33.39368 | 25.0 | 467718.0 | 0.667874 | Y |
| 9 | IC 240-583404/11 | 62.5 | 43.264944 | 25.0 | 446147.0 | 0.692239 | Y |



## Calibration / Bromoform

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

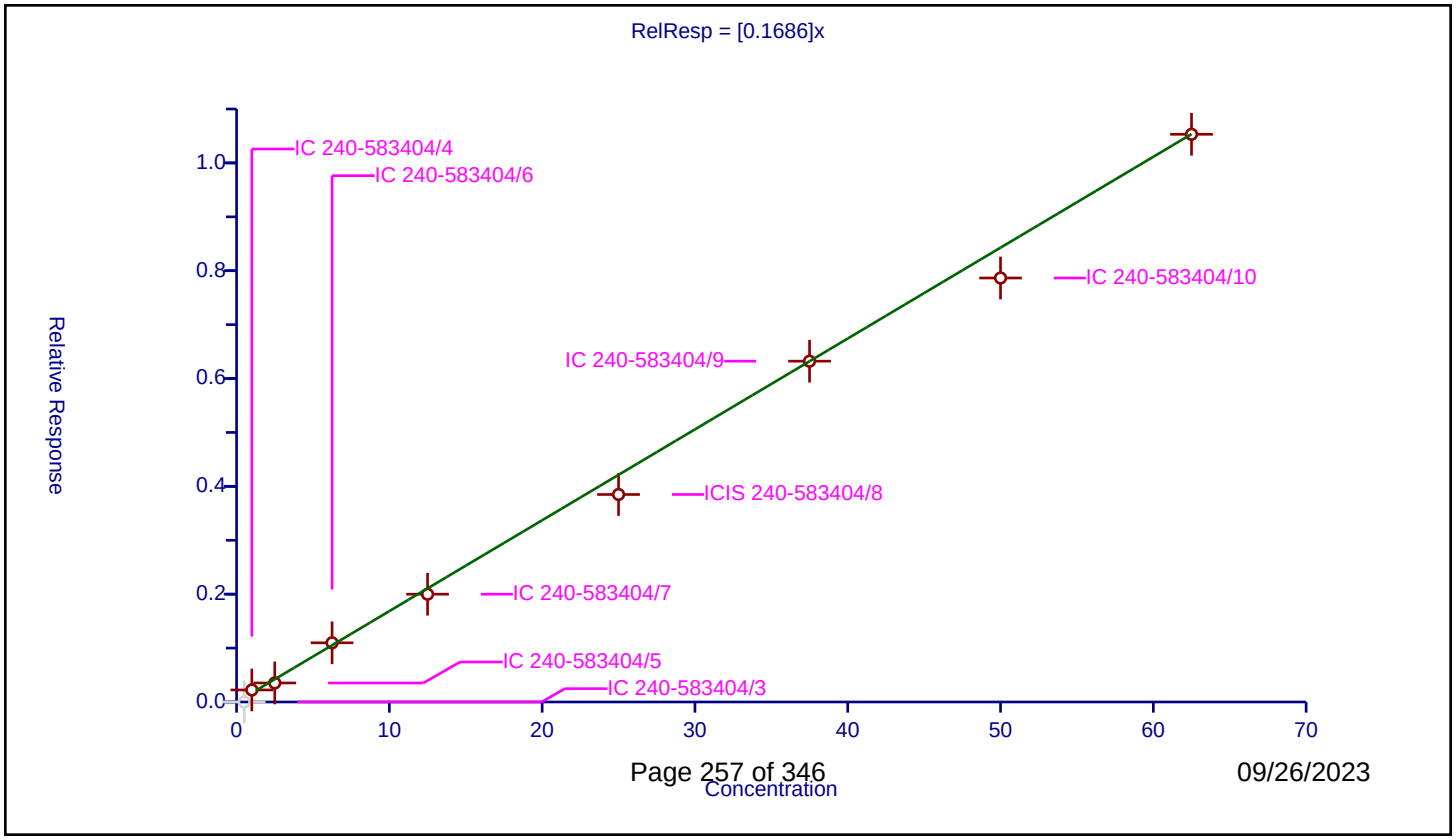
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1686 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 105000 |
| **Relative Standard Error:** | 14.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.969 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 438458.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.223316 | 25.0 | 449811.0 | 0.223316 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.352775 | 25.0 | 447878.0 | 0.14111 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.098186 | 25.0 | 434398.0 | 0.17571 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.99952 | 25.0 | 445707.0 | 0.159962 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 3.849471 | 25.0 | 456238.0 | 0.153979 | Y |
| 7 | IC 240-583404/9 | 37.5 | 6.322284 | 25.0 | 450656.0 | 0.168594 | Y |
| 8 | IC 240-583404/10 | 50.0 | 7.865263 | 25.0 | 467718.0 | 0.157305 | Y |
| 9 | IC 240-583404/11 | 62.5 | 10.531058 | 25.0 | 446147.0 | 0.168497 | Y |






09/26/2023

## Calibration / Isopropylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

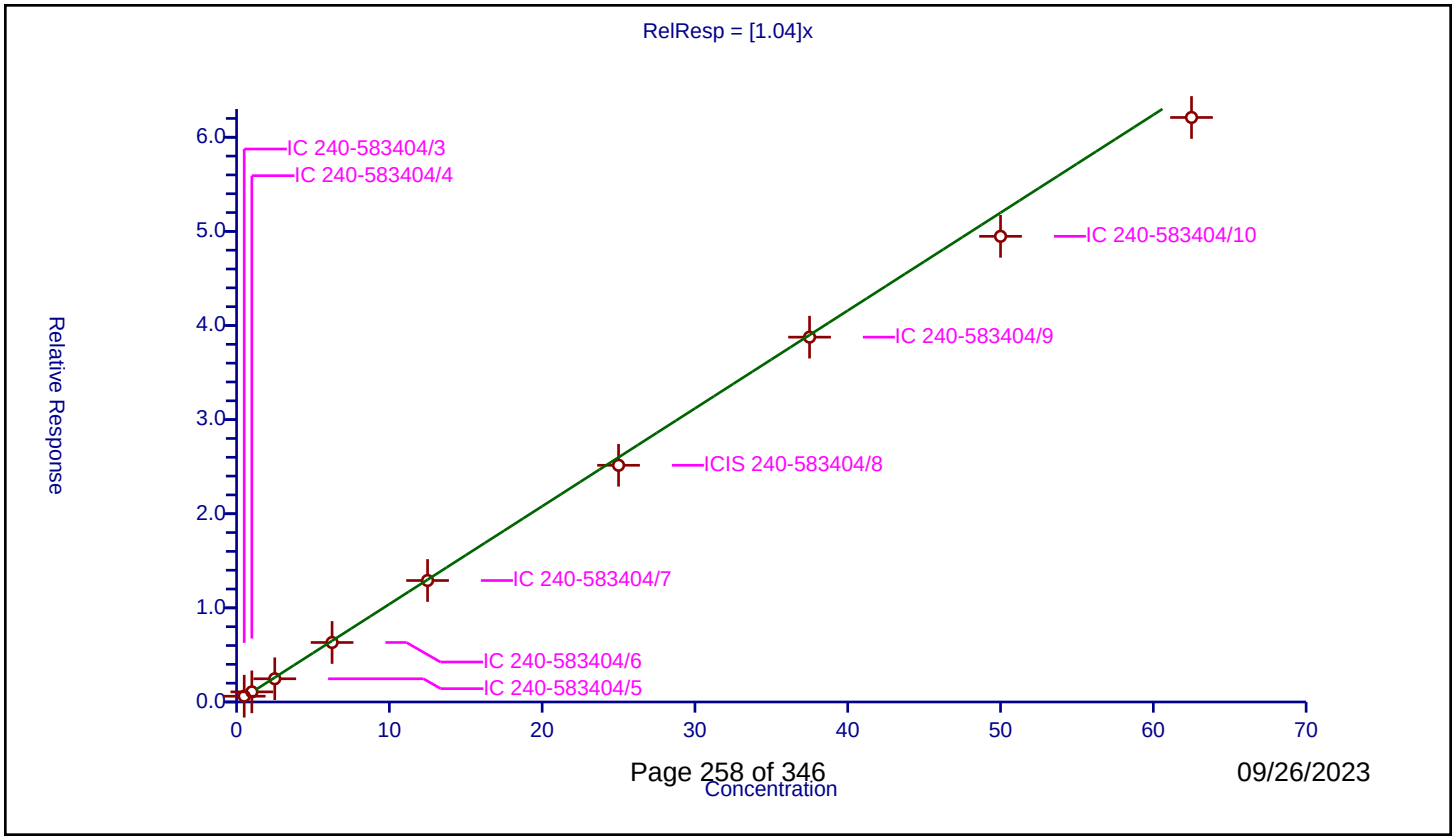
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.04 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 597000 |
| **Relative Standard Error:** | 7.3 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.614312 | 25.0 | 438458.0 | 1.228624 | Y |
| 2 | IC 240-583404/4 | 1.0 | 1.074451 | 25.0 | 449811.0 | 1.074451 | Y |
| 3 | IC 240-583404/5 | 2.5 | 2.467413 | 25.0 | 447878.0 | 0.986965 | Y |
| 4 | IC 240-583404/6 | 6.25 | 6.321277 | 25.0 | 434398.0 | 1.011404 | Y |
| 5 | IC 240-583404/7 | 12.5 | 12.907527 | 25.0 | 445707.0 | 1.032602 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 25.149374 | 25.0 | 456238.0 | 1.005975 | Y |
| 7 | IC 240-583404/9 | 37.5 | 38.763436 | 25.0 | 450656.0 | 1.033692 | Y |
| 8 | IC 240-583404/10 | 50.0 | 49.473828 | 25.0 | 467718.0 | 0.989477 | Y |
| 9 | IC 240-583404/11 | 62.5 | 62.102345 | 25.0 | 446147.0 | 0.993638 | Y |



## Calibration / 4-Bromofluorobenzene (Surr)

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

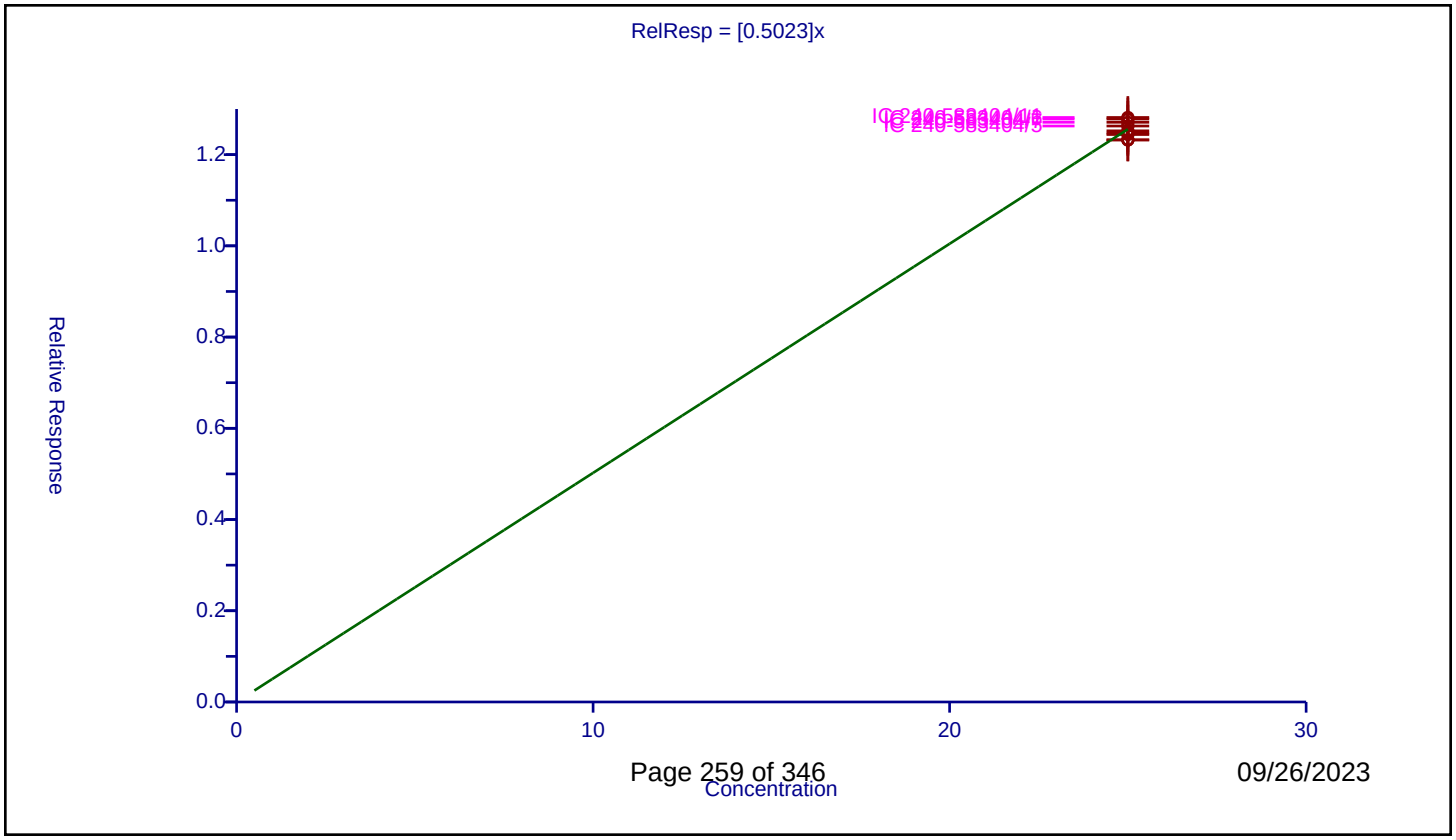
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.5023 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 239000 |
| **Relative Standard Error:** | 1.5 |
| **Correlation Coefficient:** | NA |
| **Coefficient of Determination (Adjusted):** | 0.000000000000000111 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 25.0 | 12.521952 | 25.0 | 438458.0 | 0.500878 | Y |
| 2 | IC 240-583404/4 | 25.0 | 12.322453 | 25.0 | 449811.0 | 0.492898 | Y |
| 3 | IC 240-583404/5 | 25.0 | 12.627044 | 25.0 | 447878.0 | 0.505082 | Y |
| 4 | IC 240-583404/6 | 25.0 | 12.780273 | 25.0 | 434398.0 | 0.511211 | Y |
| 5 | IC 240-583404/7 | 25.0 | 12.70891 | 25.0 | 445707.0 | 0.508356 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 12.323173 | 25.0 | 456238.0 | 0.492927 | Y |
| 7 | IC 240-583404/9 | 25.0 | 12.471763 | 25.0 | 450656.0 | 0.498871 | Y |
| 8 | IC 240-583404/10 | 25.0 | 12.440509 | 25.0 | 467718.0 | 0.49762 | Y |
| 9 | IC 240-583404/11 | 25.0 | 12.81461 | 25.0 | 446147.0 | 0.512584 | Y |



## Calibration / Bromobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

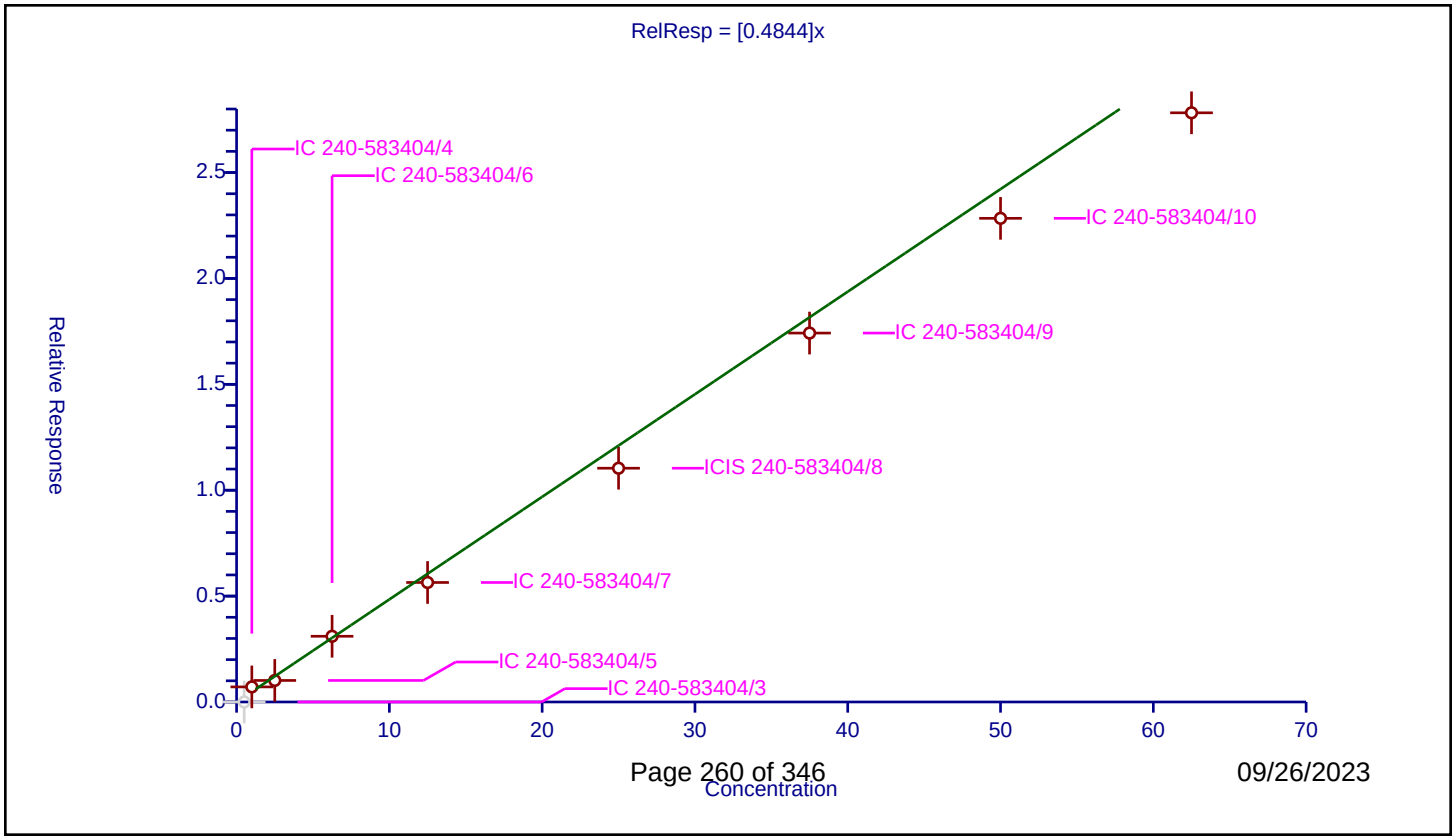
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4844 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 152000 |
| **Relative Standard Error:** | 19.7 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.939 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 227689.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.712291 | 25.0 | 240632.0 | 0.712291 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.0166 | 25.0 | 240237.0 | 0.40664 | Y |
| 4 | IC 240-583404/6 | 6.25 | 3.103197 | 25.0 | 232768.0 | 0.496512 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.642717 | 25.0 | 236916.0 | 0.451417 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 11.038561 | 25.0 | 235547.0 | 0.441542 | Y |
| 7 | IC 240-583404/9 | 37.5 | 17.419693 | 25.0 | 239268.0 | 0.464525 | Y |
| 8 | IC 240-583404/10 | 50.0 | 22.839126 | 25.0 | 244253.0 | 0.456783 | Y |
| 9 | IC 240-583404/11 | 62.5 | 27.820874 | 25.0 | 237648.0 | 0.445134 | Y |



## Calibration / 1,1,2,2-Tetrachloroethane

| | |
|---|---|
| **Curve Type:** | Linear |
| **Weighting:** | Conc |
| **Origin:** | None |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

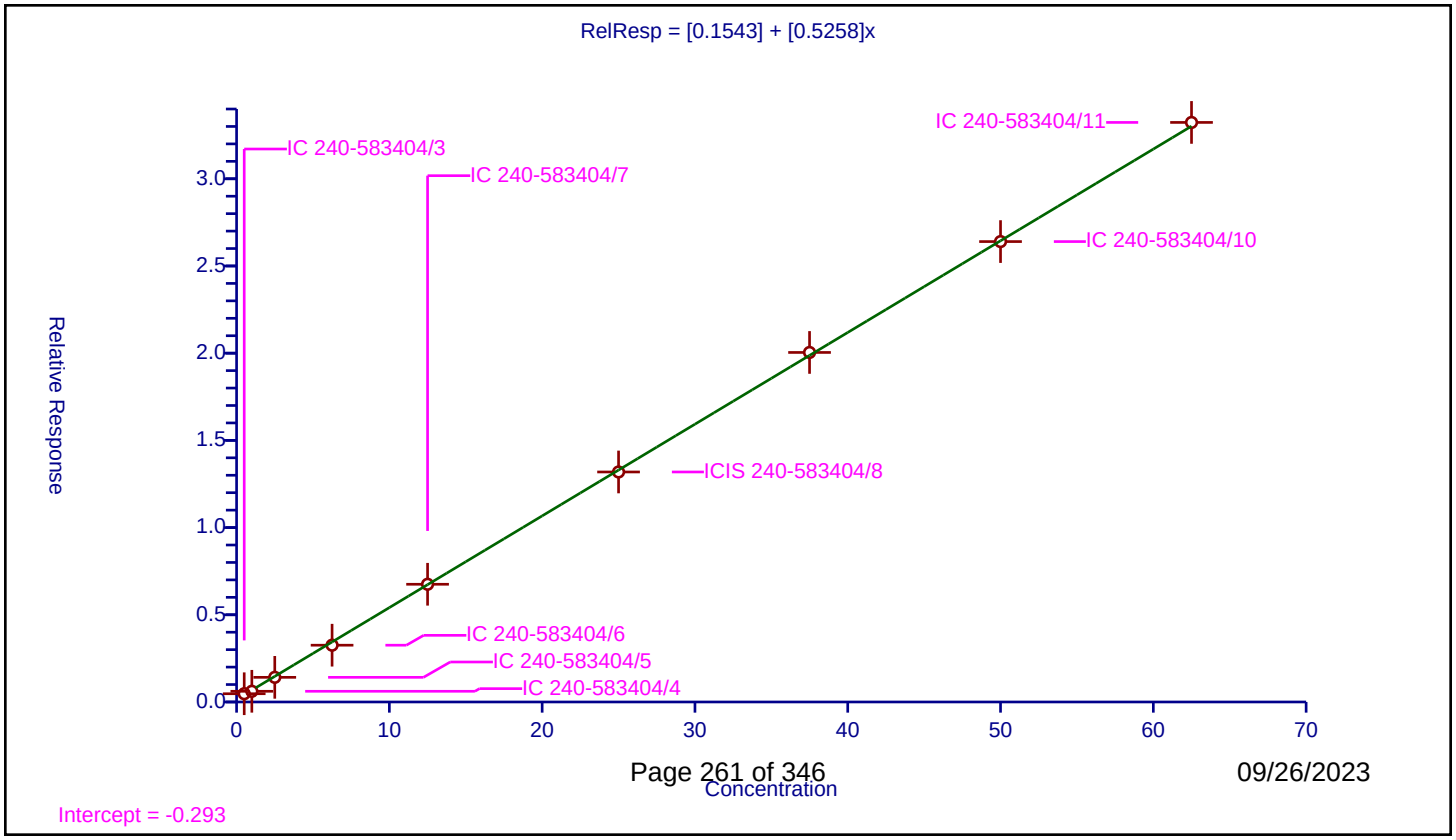
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0.1543 |
| **Slope:** | 0.5258 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 179000 |
| **Relative Standard Error:** | 9.8 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 1.000 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.473782 | 25.0 | 227689.0 | 0.947564 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.614216 | 25.0 | 240632.0 | 0.614216 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.413292 | 25.0 | 240237.0 | 0.565317 | Y |
| 4 | IC 240-583404/6 | 6.25 | 3.256032 | 25.0 | 232768.0 | 0.520965 | Y |
| 5 | IC 240-583404/7 | 12.5 | 6.750283 | 25.0 | 236916.0 | 0.540023 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 13.188557 | 25.0 | 235547.0 | 0.527542 | Y |
| 7 | IC 240-583404/9 | 37.5 | 20.04123 | 25.0 | 239268.0 | 0.534433 | Y |
| 8 | IC 240-583404/10 | 50.0 | 26.39855 | 25.0 | 244253.0 | 0.527971 | Y |
| 9 | IC 240-583404/11 | 62.5 | 33.230134 | 25.0 | 237648.0 | 0.531682 | Y |



## Calibration / N-Propylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

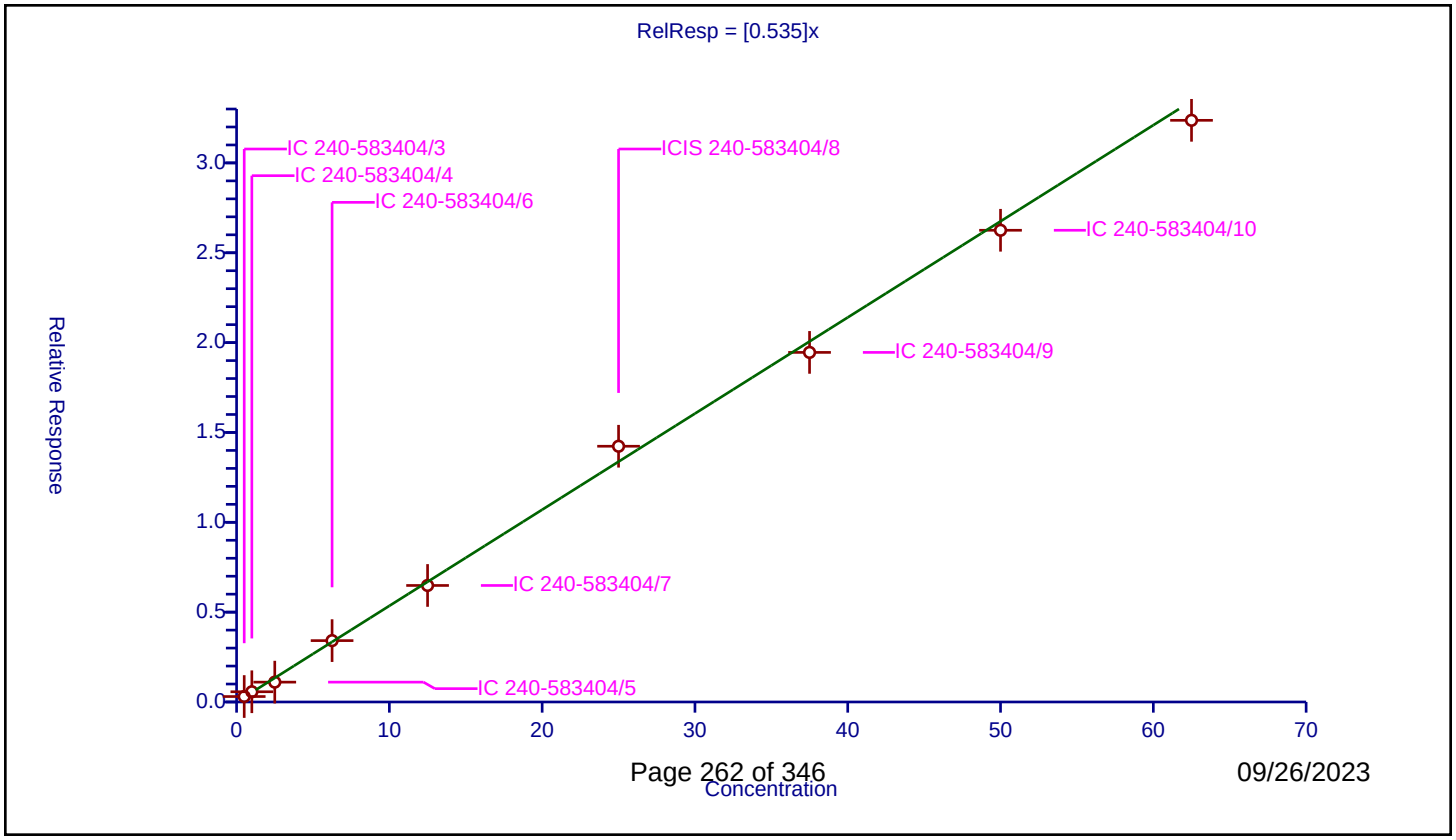
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.535 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 165000 |
| **Relative Standard Error:** | 8.7 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.990 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.303923 | 25.0 | 227689.0 | 0.607847 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.569334 | 25.0 | 240632.0 | 0.569334 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.104638 | 25.0 | 240237.0 | 0.441855 | Y |
| 4 | IC 240-583404/6 | 6.25 | 3.414881 | 25.0 | 232768.0 | 0.546381 | Y |
| 5 | IC 240-583404/7 | 12.5 | 6.484155 | 25.0 | 236916.0 | 0.518732 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 14.232298 | 25.0 | 235547.0 | 0.569292 | Y |
| 7 | IC 240-583404/9 | 37.5 | 19.454545 | 25.0 | 239268.0 | 0.518788 | Y |
| 8 | IC 240-583404/10 | 50.0 | 26.252492 | 25.0 | 244253.0 | 0.52505 | Y |
| 9 | IC 240-583404/11 | 62.5 | 32.370775 | 25.0 | 237648.0 | 0.517932 | Y |



## Calibration / 1,2,3-Trichloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

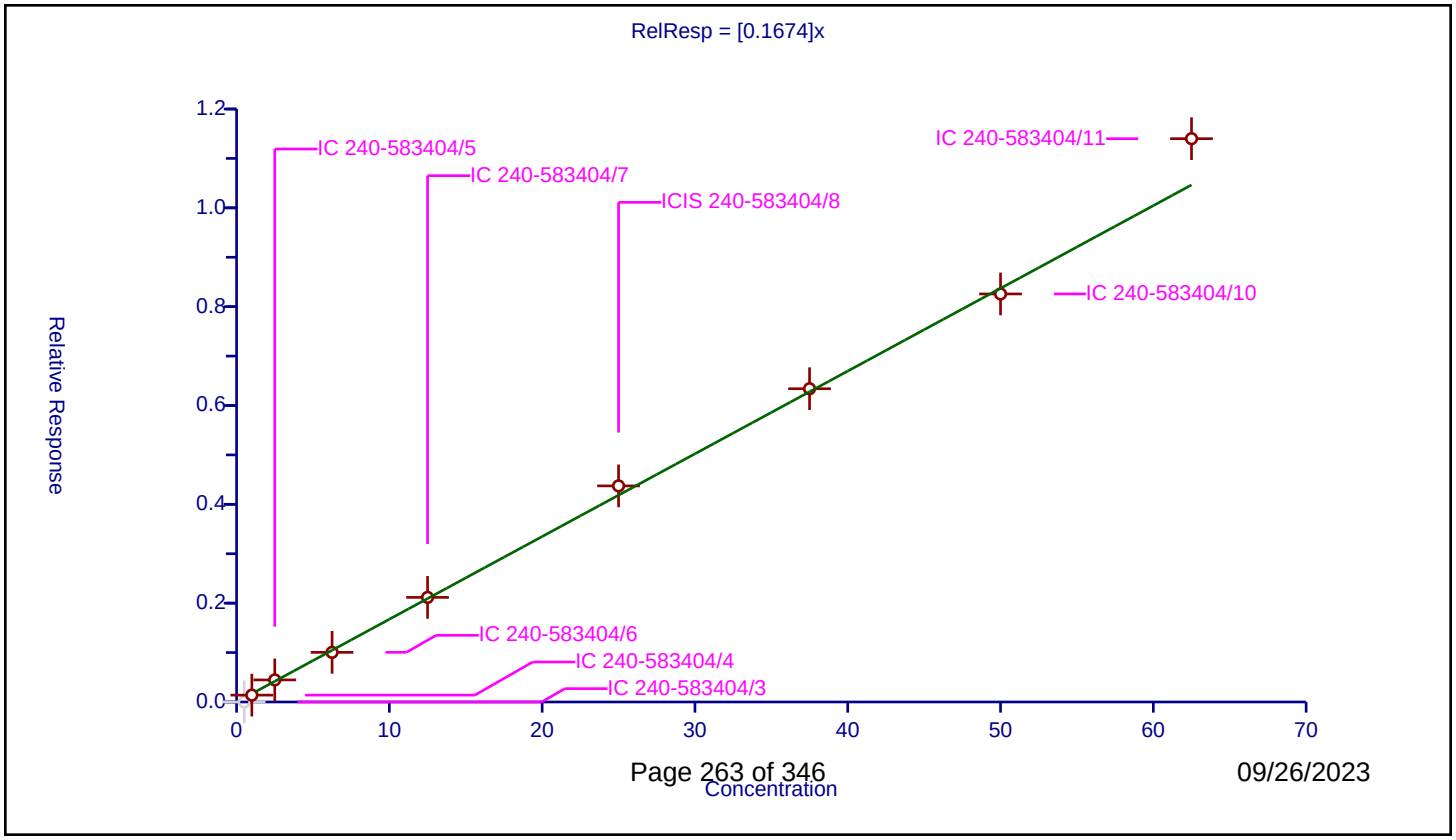
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1674 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 58700 |
| **Relative Standard Error:** | 8.0 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 227689.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.139113 | 25.0 | 240632.0 | 0.139113 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.446642 | 25.0 | 240237.0 | 0.178657 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.004326 | 25.0 | 232768.0 | 0.160692 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.116784 | 25.0 | 236916.0 | 0.169343 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.372906 | 25.0 | 235547.0 | 0.174916 | Y |
| 7 | IC 240-583404/9 | 37.5 | 6.339439 | 25.0 | 239268.0 | 0.169052 | Y |
| 8 | IC 240-583404/10 | 50.0 | 8.257524 | 25.0 | 244253.0 | 0.16515 | Y |
| 9 | IC 240-583404/11 | 62.5 | 11.400159 | 25.0 | 237648.0 | 0.182403 | Y |



## Calibration / trans-1,4-Dichloro-2-butene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

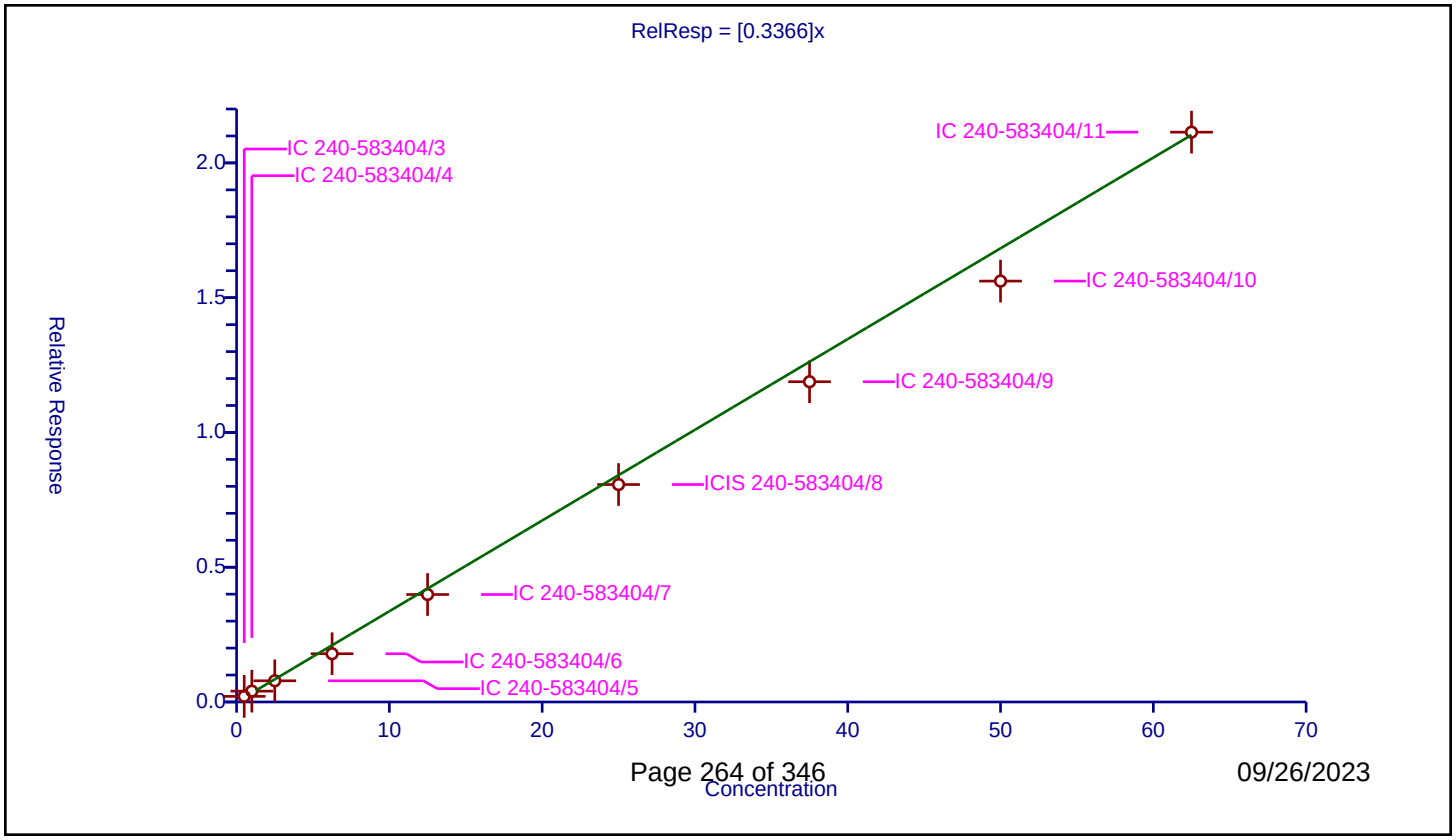
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.3366 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 103000 |
| **Relative Standard Error:** | 13.0 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.975 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.208508 | 25.0 | 227689.0 | 0.417016 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.402274 | 25.0 | 240632.0 | 0.402274 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.786515 | 25.0 | 240237.0 | 0.314606 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.790302 | 25.0 | 232768.0 | 0.286448 | Y |
| 5 | IC 240-583404/7 | 12.5 | 3.987384 | 25.0 | 236916.0 | 0.318991 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 8.067604 | 25.0 | 235547.0 | 0.322704 | Y |
| 7 | IC 240-583404/9 | 37.5 | 11.881342 | 25.0 | 239268.0 | 0.316836 | Y |
| 8 | IC 240-583404/10 | 50.0 | 15.615264 | 25.0 | 244253.0 | 0.312305 | Y |
| 9 | IC 240-583404/11 | 62.5 | 21.140826 | 25.0 | 237648.0 | 0.338253 | Y |



## Calibration / 2-Chlorotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

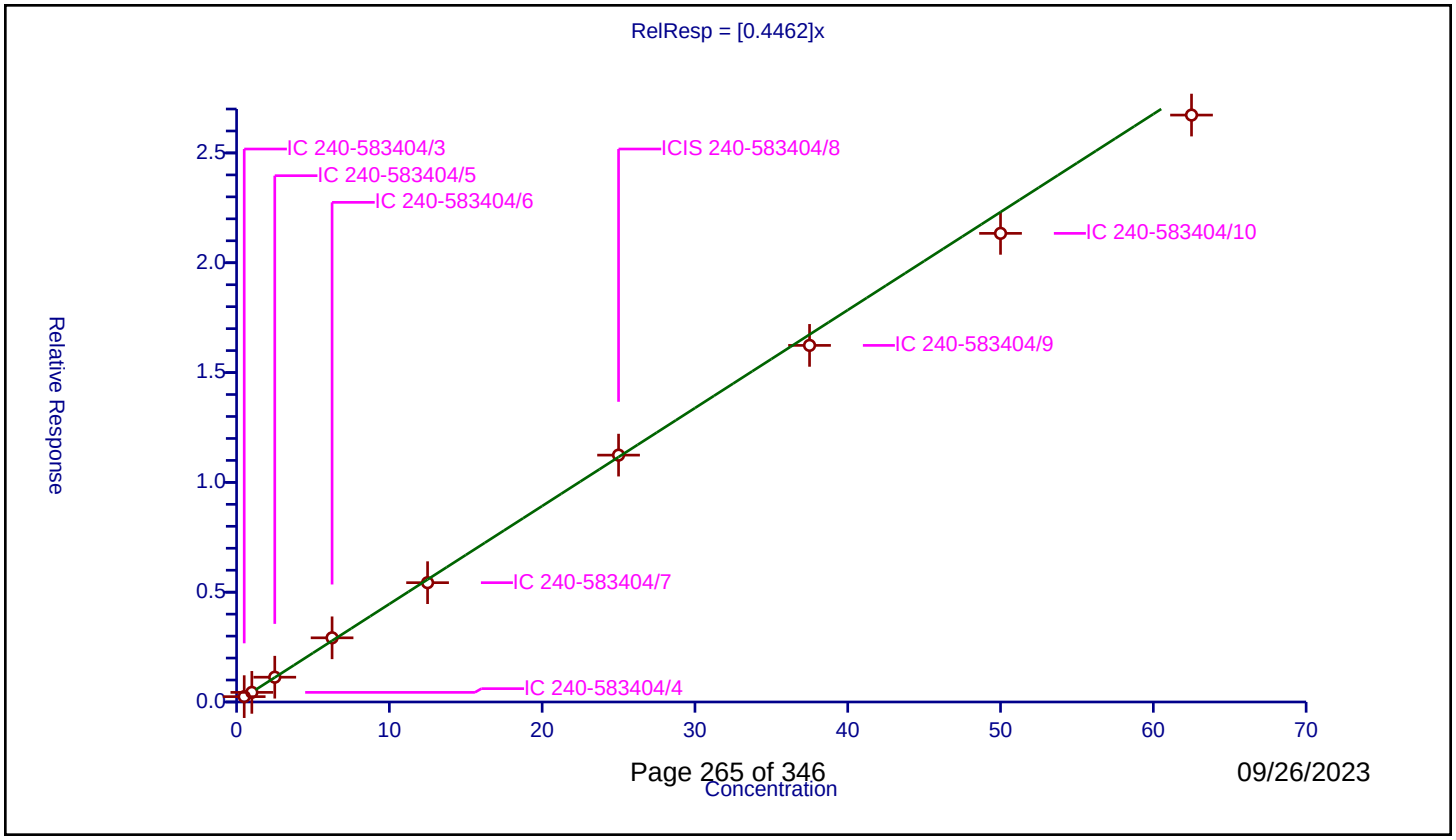
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4462 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 135000 |
| **Relative Standard Error:** | 4.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.997 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.243314 | 25.0 | 227689.0 | 0.486629 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.438221 | 25.0 | 240632.0 | 0.438221 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.128781 | 25.0 | 240237.0 | 0.451512 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.921686 | 25.0 | 232768.0 | 0.46747 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.432411 | 25.0 | 236916.0 | 0.434593 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 11.24075 | 25.0 | 235547.0 | 0.44963 | Y |
| 7 | IC 240-583404/9 | 37.5 | 16.237023 | 25.0 | 239268.0 | 0.432987 | Y |
| 8 | IC 240-583404/10 | 50.0 | 21.337916 | 25.0 | 244253.0 | 0.426758 | Y |
| 9 | IC 240-583404/11 | 62.5 | 26.72482 | 25.0 | 237648.0 | 0.427597 | Y |



## Calibration / 1,3,5-Trimethylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

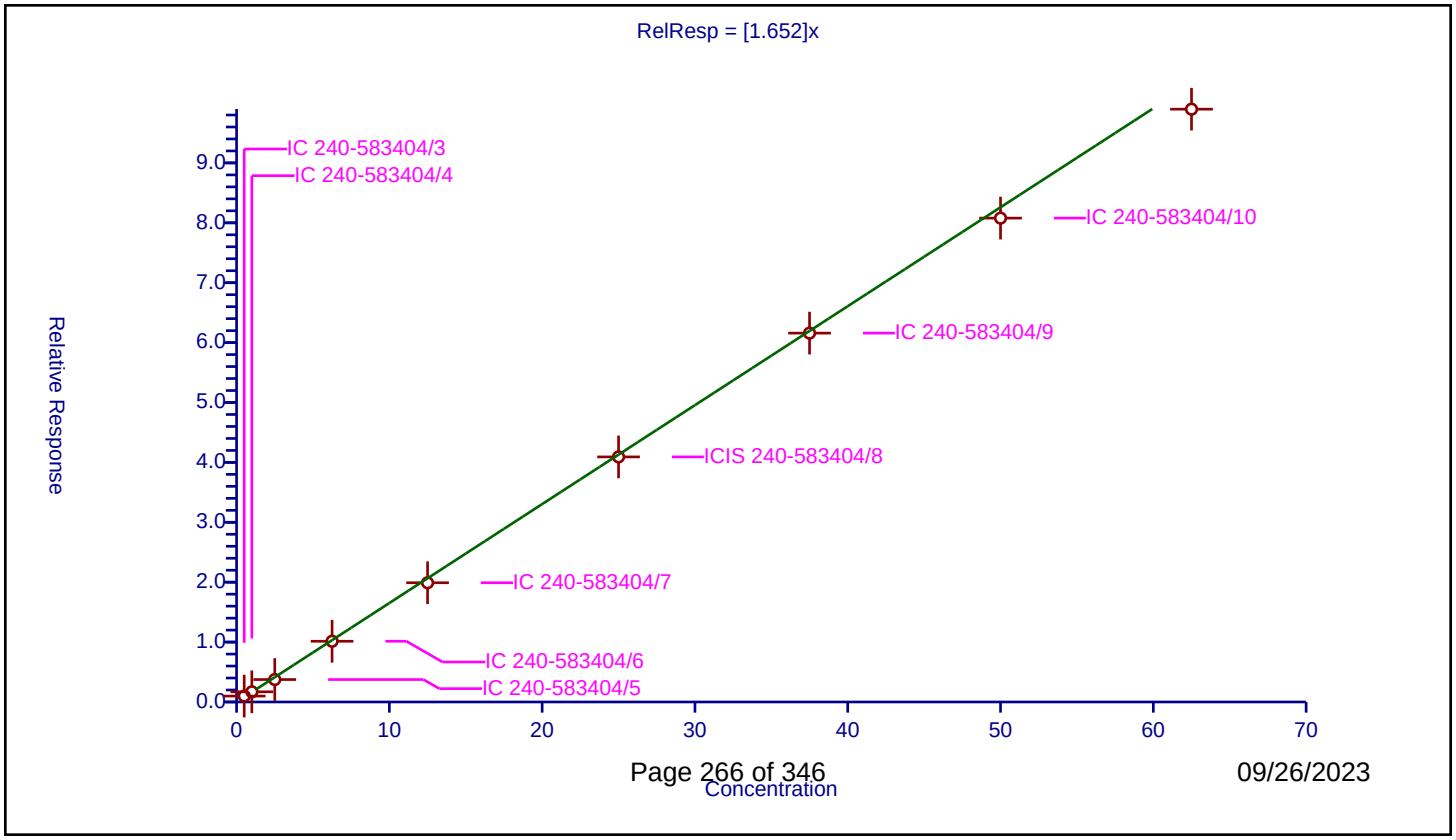
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.652 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 506000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.987861 | 25.0 | 227689.0 | 1.975721 | Y |
| 2 | IC 240-583404/4 | 1.0 | 1.700314 | 25.0 | 240632.0 | 1.700314 | Y |
| 3 | IC 240-583404/5 | 2.5 | 3.74526 | 25.0 | 240237.0 | 1.498104 | Y |
| 4 | IC 240-583404/6 | 6.25 | 10.13971 | 25.0 | 232768.0 | 1.622354 | Y |
| 5 | IC 240-583404/7 | 12.5 | 19.906 | 25.0 | 236916.0 | 1.59248 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 40.918373 | 25.0 | 235547.0 | 1.636735 | Y |
| 7 | IC 240-583404/9 | 37.5 | 61.584499 | 25.0 | 239268.0 | 1.642253 | Y |
| 8 | IC 240-583404/10 | 50.0 | 80.786623 | 25.0 | 244253.0 | 1.615732 | Y |
| 9 | IC 240-583404/11 | 62.5 | 98.971799 | 25.0 | 237648.0 | 1.583549 | Y |



## Calibration / 4-Chlorotoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

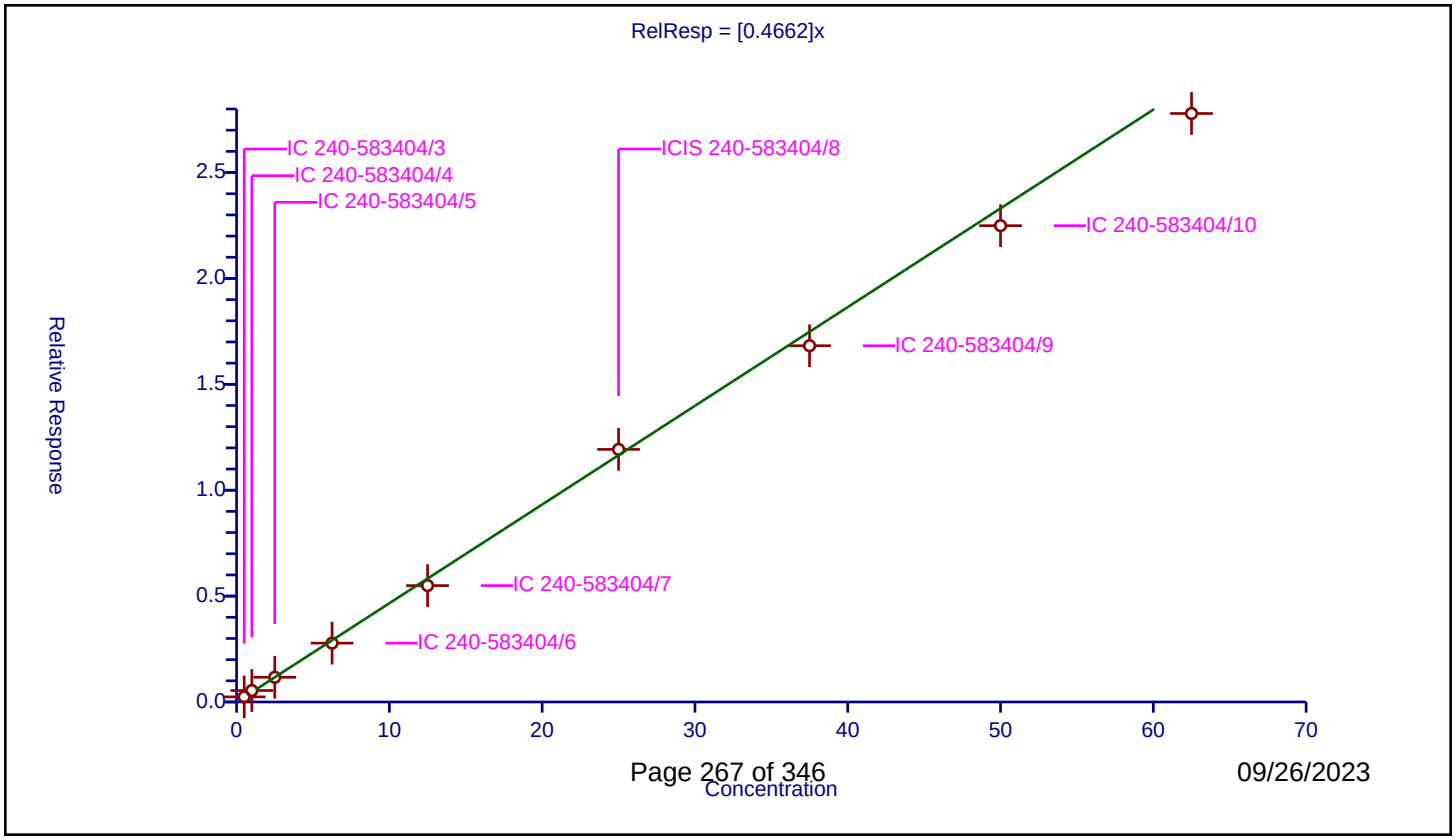
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4662 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 141000 |
| **Relative Standard Error:** | 6.9 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.994 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.241009 | 25.0 | 227689.0 | 0.482017 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.542322 | 25.0 | 240632.0 | 0.542322 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.166452 | 25.0 | 240237.0 | 0.466581 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.779699 | 25.0 | 232768.0 | 0.444752 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.496041 | 25.0 | 236916.0 | 0.439683 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 11.92745 | 25.0 | 235547.0 | 0.477098 | Y |
| 7 | IC 240-583404/9 | 37.5 | 16.822663 | 25.0 | 239268.0 | 0.448604 | Y |
| 8 | IC 240-583404/10 | 50.0 | 22.490512 | 25.0 | 244253.0 | 0.44981 | Y |
| 9 | IC 240-583404/11 | 62.5 | 27.788052 | 25.0 | 237648.0 | 0.444609 | Y |



## Calibration / tert-Butylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

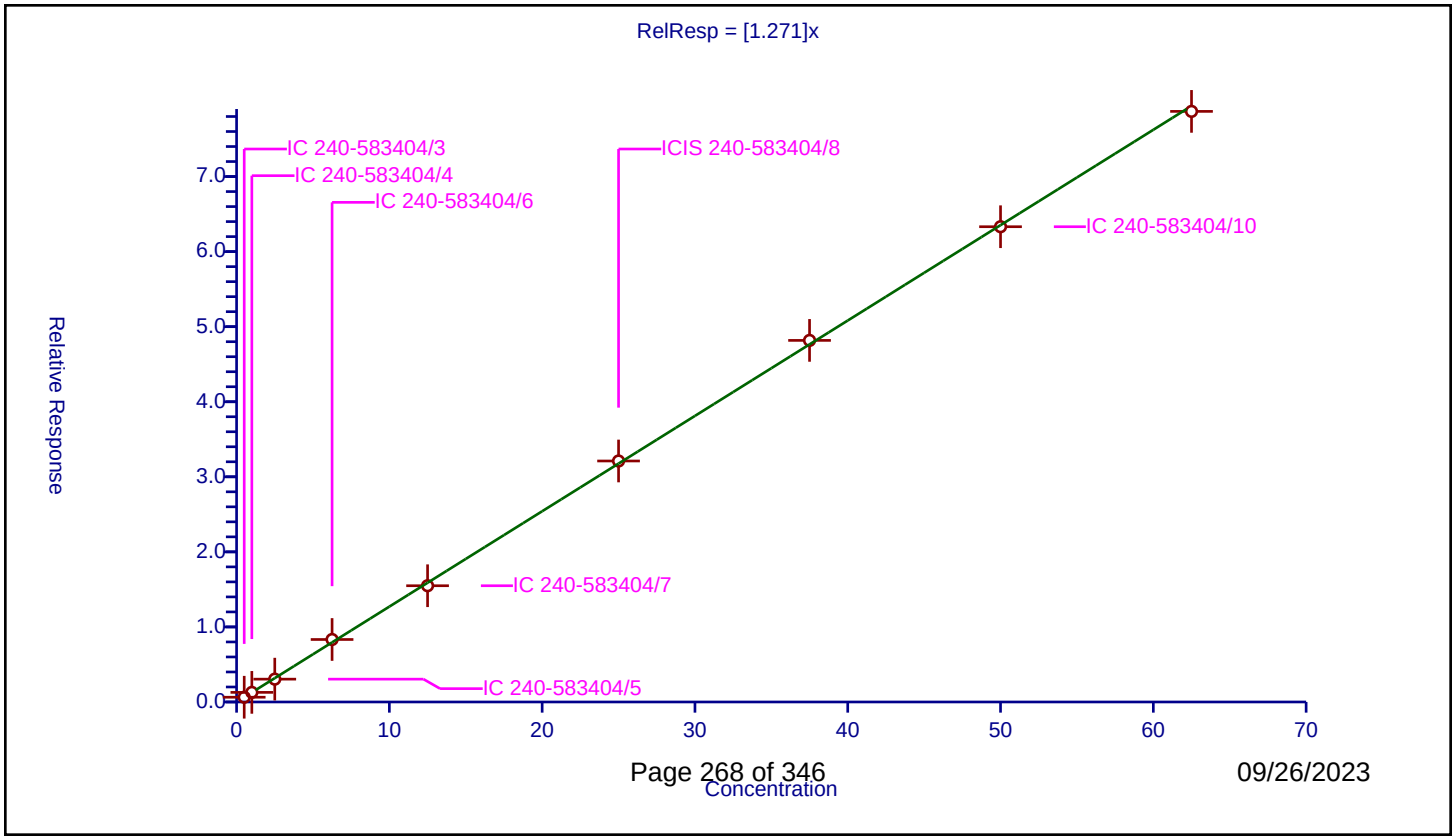
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.271 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 399000 |
| **Relative Standard Error:** | 2.5 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.999 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.635626 | 25.0 | 227689.0 | 1.271252 | Y |
| 2 | IC 240-583404/4 | 1.0 | 1.280794 | 25.0 | 240632.0 | 1.280794 | Y |
| 3 | IC 240-583404/5 | 2.5 | 3.042829 | 25.0 | 240237.0 | 1.217131 | Y |
| 4 | IC 240-583404/6 | 6.25 | 8.326961 | 25.0 | 232768.0 | 1.332314 | Y |
| 5 | IC 240-583404/7 | 12.5 | 15.48914 | 25.0 | 236916.0 | 1.239131 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 32.108772 | 25.0 | 235547.0 | 1.284351 | Y |
| 7 | IC 240-583404/9 | 37.5 | 48.171715 | 25.0 | 239268.0 | 1.284579 | Y |
| 8 | IC 240-583404/10 | 50.0 | 63.316725 | 25.0 | 244253.0 | 1.266334 | Y |
| 9 | IC 240-583404/11 | 62.5 | 78.682442 | 25.0 | 237648.0 | 1.258919 | Y |



## Calibration / 1,2,4-Trimethylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

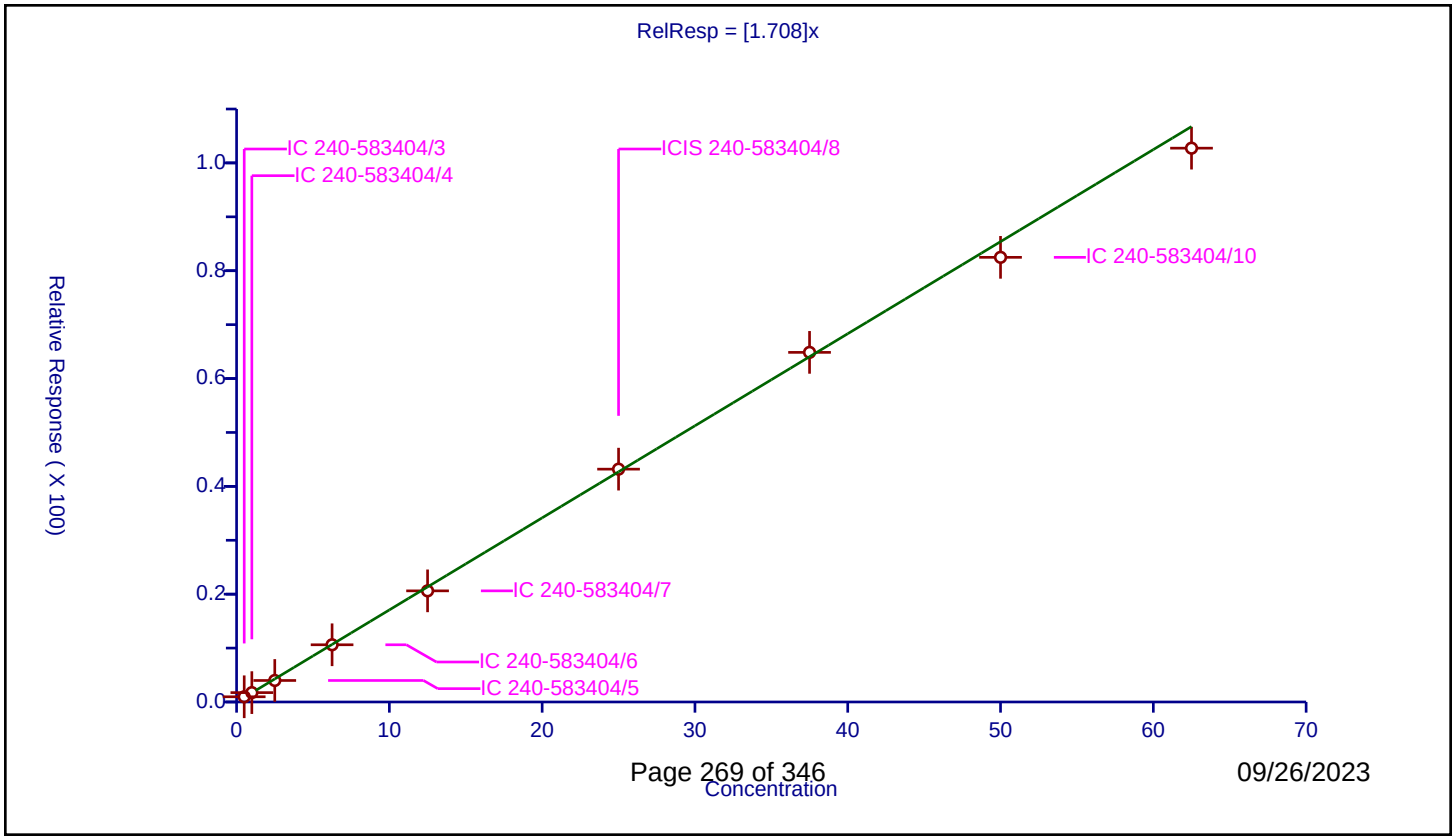
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.708 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 525000 |
| **Relative Standard Error:** | 5.8 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.967877 | 25.0 | 227689.0 | 1.935754 | Y |
| 2 | IC 240-583404/4 | 1.0 | 1.74104 | 25.0 | 240632.0 | 1.74104 | Y |
| 3 | IC 240-583404/5 | 2.5 | 3.991787 | 25.0 | 240237.0 | 1.596715 | Y |
| 4 | IC 240-583404/6 | 6.25 | 10.611961 | 25.0 | 232768.0 | 1.697914 | Y |
| 5 | IC 240-583404/7 | 12.5 | 20.615535 | 25.0 | 236916.0 | 1.649243 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 43.191911 | 25.0 | 235547.0 | 1.727676 | Y |
| 7 | IC 240-583404/9 | 37.5 | 64.853428 | 25.0 | 239268.0 | 1.729425 | Y |
| 8 | IC 240-583404/10 | 50.0 | 82.487626 | 25.0 | 244253.0 | 1.649753 | Y |
| 9 | IC 240-583404/11 | 62.5 | 102.737557 | 25.0 | 237648.0 | 1.643801 | Y |



## Calibration / sec-Butylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

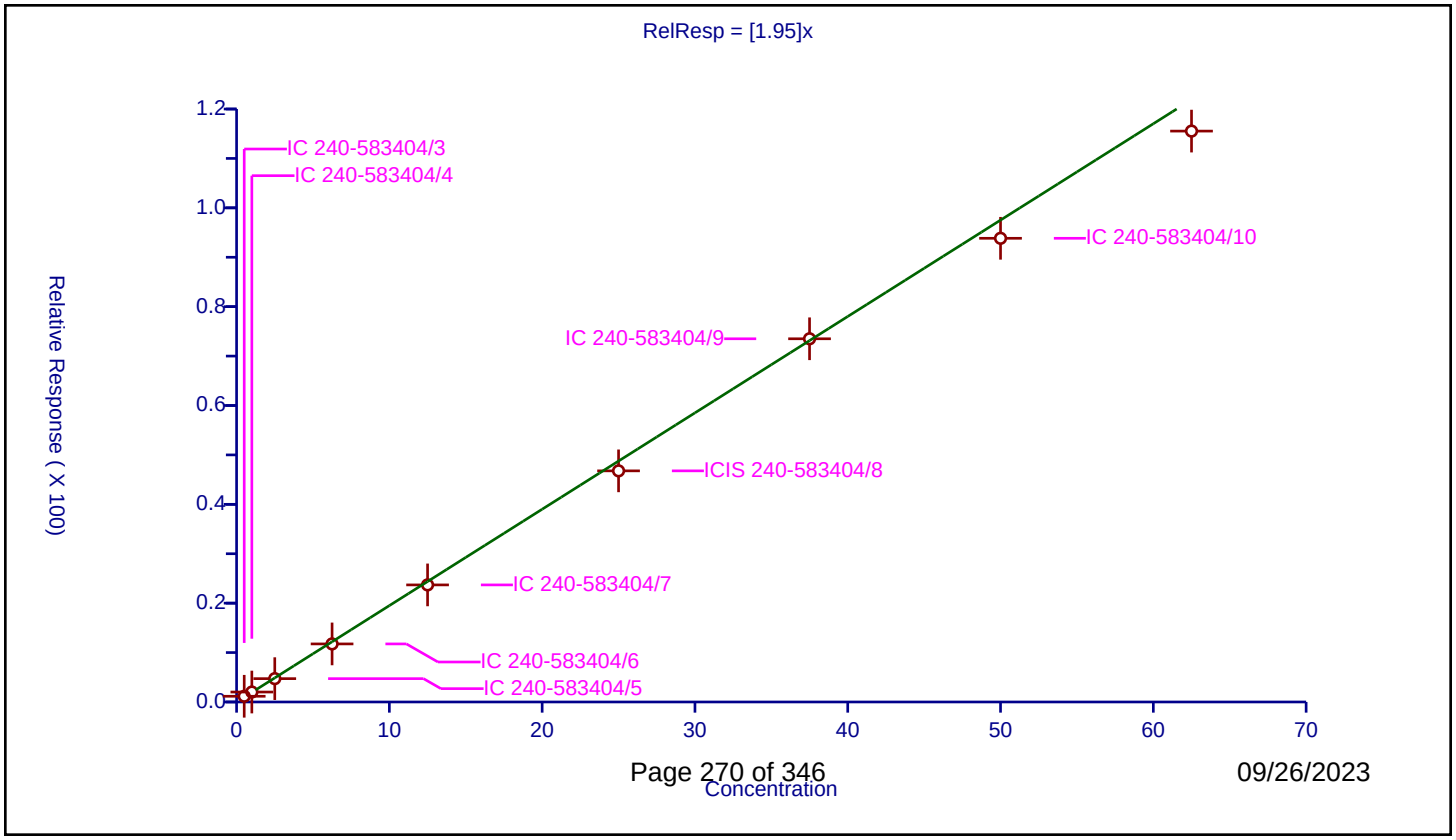
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.95 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 592000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 1.159147 | 25.0 | 227689.0 | 2.318294 | Y |
| 2 | IC 240-583404/4 | 1.0 | 2.013136 | 25.0 | 240632.0 | 2.013136 | Y |
| 3 | IC 240-583404/5 | 2.5 | 4.723877 | 25.0 | 240237.0 | 1.889551 | Y |
| 4 | IC 240-583404/6 | 6.25 | 11.752797 | 25.0 | 232768.0 | 1.880447 | Y |
| 5 | IC 240-583404/7 | 12.5 | 23.691308 | 25.0 | 236916.0 | 1.895305 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 46.772088 | 25.0 | 235547.0 | 1.870884 | Y |
| 7 | IC 240-583404/9 | 37.5 | 73.504292 | 25.0 | 239268.0 | 1.960114 | Y |
| 8 | IC 240-583404/10 | 50.0 | 93.838458 | 25.0 | 244253.0 | 1.876769 | Y |
| 9 | IC 240-583404/11 | 62.5 | 115.533057 | 25.0 | 237648.0 | 1.848529 | Y |



## Calibration / 1,3-Dichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

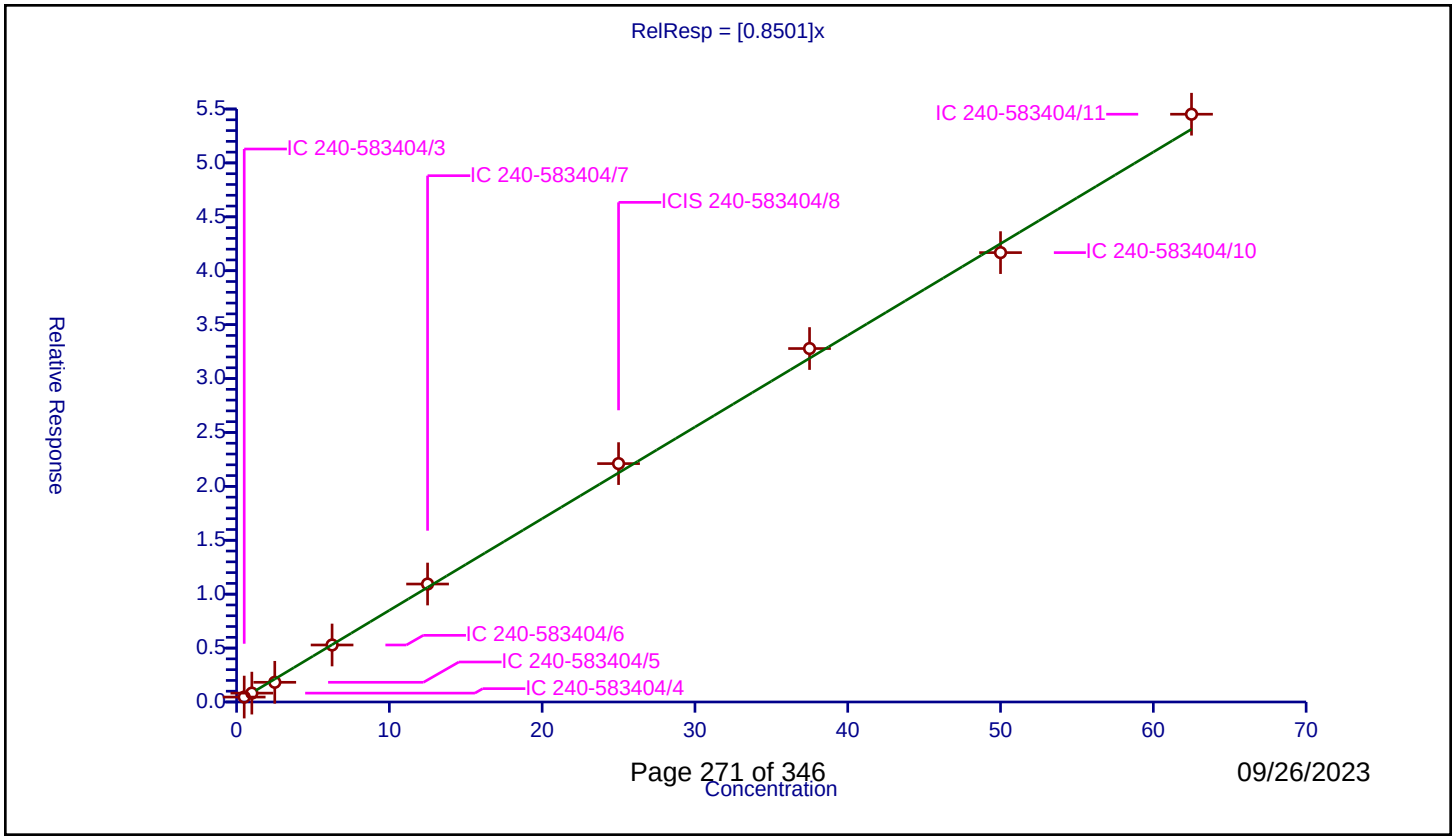
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8501 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 272000 |
| **Relative Standard Error:** | 6.2 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.455775 | 25.0 | 227689.0 | 0.91155 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.823457 | 25.0 | 240632.0 | 0.823457 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.82653 | 25.0 | 240237.0 | 0.730612 | Y |
| 4 | IC 240-583404/6 | 6.25 | 5.286057 | 25.0 | 232768.0 | 0.845769 | Y |
| 5 | IC 240-583404/7 | 12.5 | 10.941009 | 25.0 | 236916.0 | 0.875281 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 22.110449 | 25.0 | 235547.0 | 0.884418 | Y |
| 7 | IC 240-583404/9 | 37.5 | 32.783949 | 25.0 | 239268.0 | 0.874239 | Y |
| 8 | IC 240-583404/10 | 50.0 | 41.681167 | 25.0 | 244253.0 | 0.833623 | Y |
| 9 | IC 240-583404/11 | 62.5 | 54.518658 | 25.0 | 237648.0 | 0.872299 | Y |



## Calibration / 4-Isopropyltoluene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

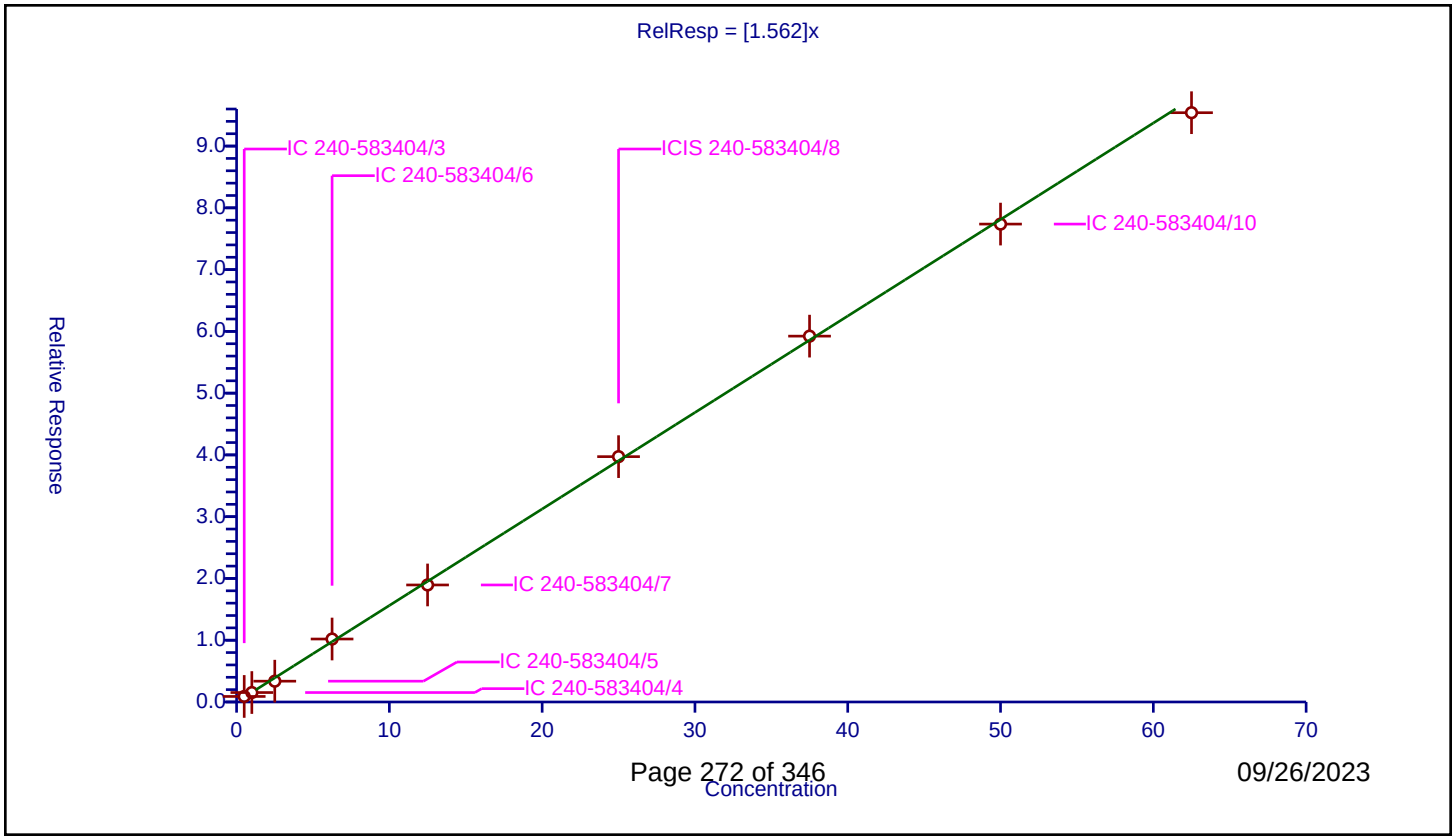
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.562 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 487000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.896728 | 25.0 | 227689.0 | 1.793455 | Y |
| 2 | IC 240-583404/4 | 1.0 | 1.530241 | 25.0 | 240632.0 | 1.530241 | Y |
| 3 | IC 240-583404/5 | 2.5 | 3.367508 | 25.0 | 240237.0 | 1.347003 | Y |
| 4 | IC 240-583404/6 | 6.25 | 10.194485 | 25.0 | 232768.0 | 1.631118 | Y |
| 5 | IC 240-583404/7 | 12.5 | 18.944795 | 25.0 | 236916.0 | 1.515584 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 39.722221 | 25.0 | 235547.0 | 1.588889 | Y |
| 7 | IC 240-583404/9 | 37.5 | 59.2294 | 25.0 | 239268.0 | 1.579451 | Y |
| 8 | IC 240-583404/10 | 50.0 | 77.372233 | 25.0 | 244253.0 | 1.547445 | Y |
| 9 | IC 240-583404/11 | 62.5 | 95.405284 | 25.0 | 237648.0 | 1.526485 | Y |



## Calibration / 1,4-Dichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

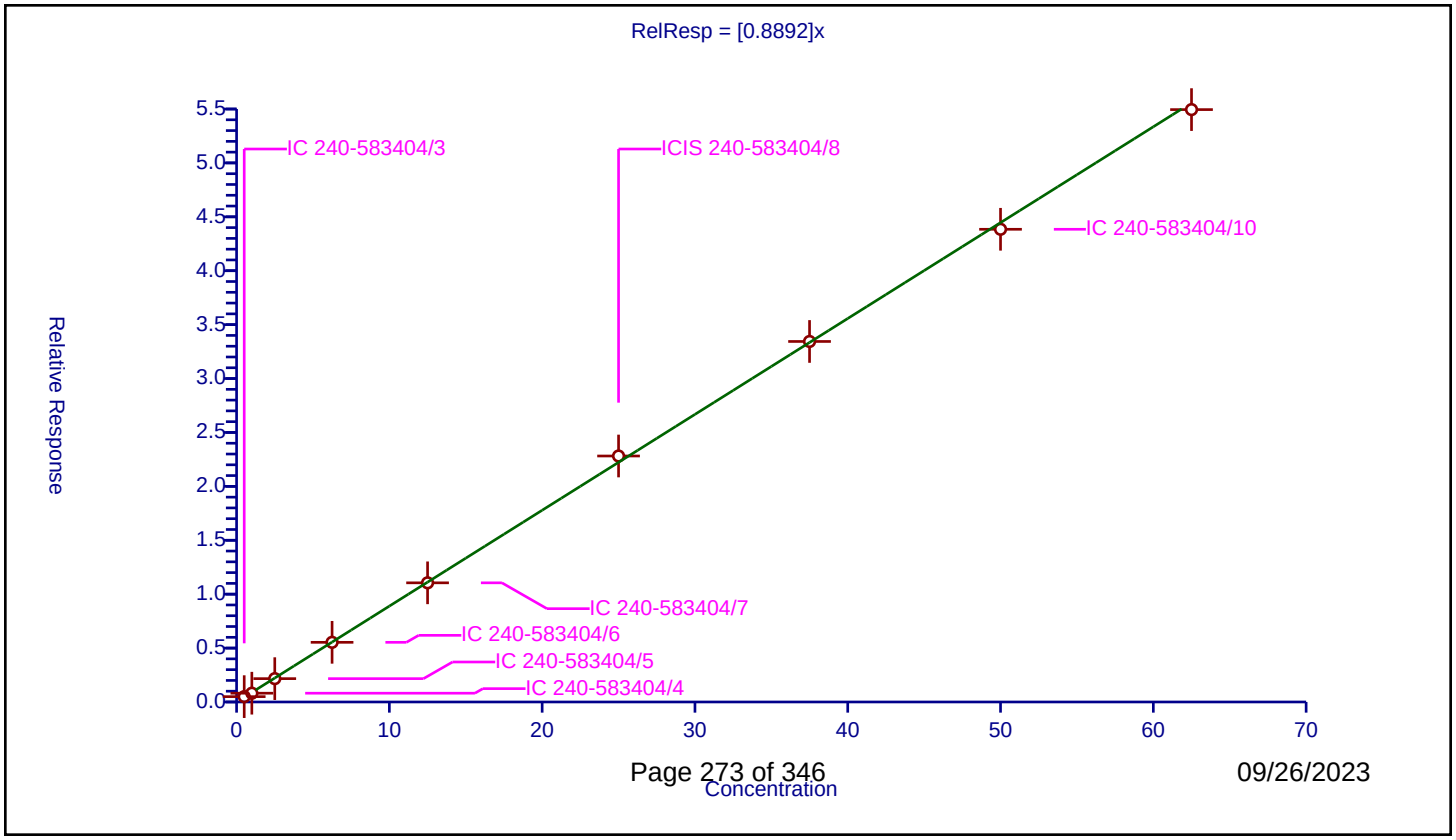
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8892 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 278000 |
| **Relative Standard Error:** | 5.3 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.996 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.496511 | 25.0 | 227689.0 | 0.993021 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.813898 | 25.0 | 240632.0 | 0.813898 | Y |
| 3 | IC 240-583404/5 | 2.5 | 2.164321 | 25.0 | 240237.0 | 0.865728 | Y |
| 4 | IC 240-583404/6 | 6.25 | 5.534158 | 25.0 | 232768.0 | 0.885465 | Y |
| 5 | IC 240-583404/7 | 12.5 | 11.053496 | 25.0 | 236916.0 | 0.88428 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 22.815192 | 25.0 | 235547.0 | 0.912608 | Y |
| 7 | IC 240-583404/9 | 37.5 | 33.438759 | 25.0 | 239268.0 | 0.8917 | Y |
| 8 | IC 240-583404/10 | 50.0 | 43.845316 | 25.0 | 244253.0 | 0.876906 | Y |
| 9 | IC 240-583404/11 | 62.5 | 54.946391 | 25.0 | 237648.0 | 0.879142 | Y |



## Calibration / n-Butylbenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

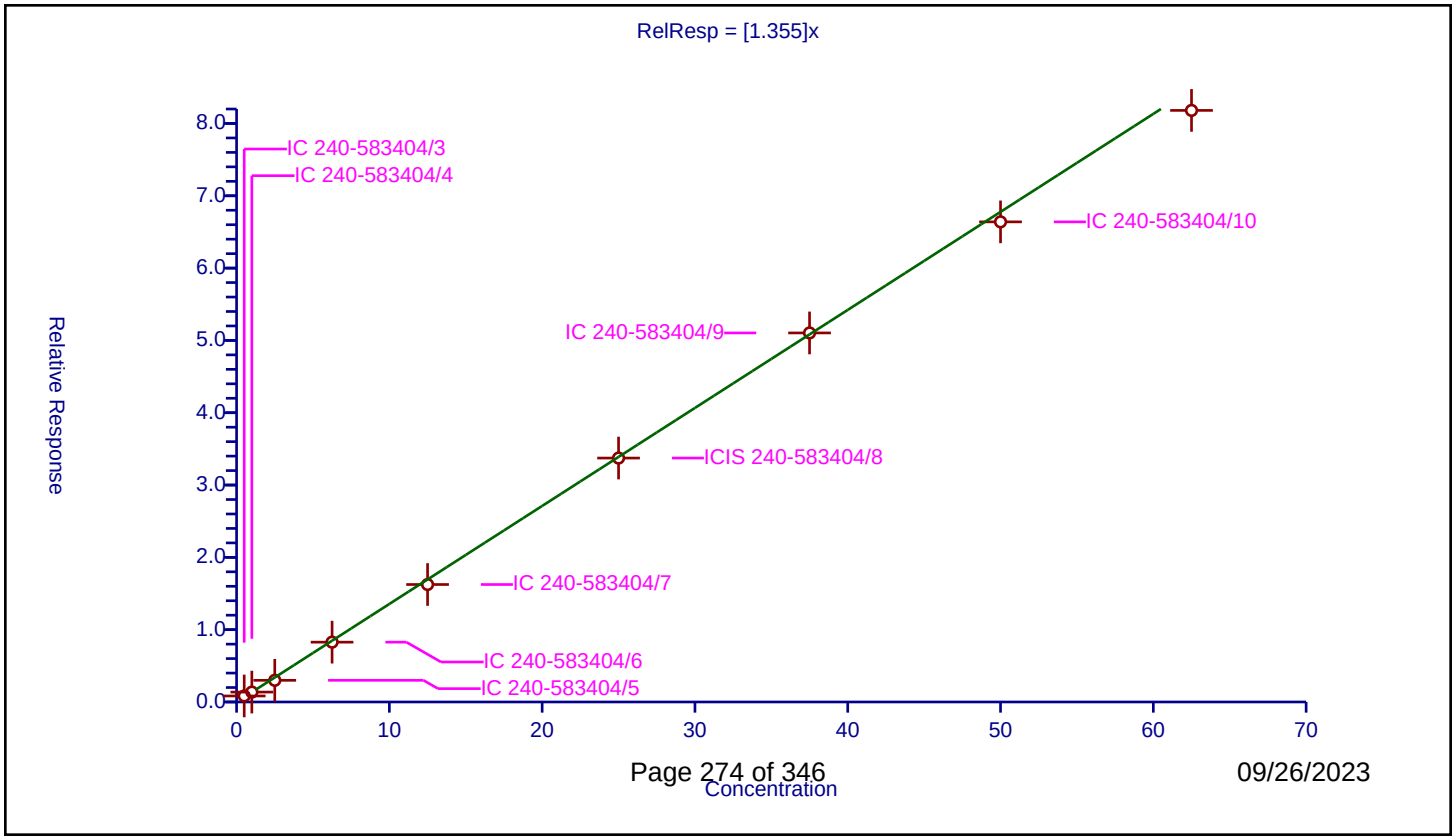
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.355 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 418000 |
| **Relative Standard Error:** | 9.2 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.988 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.830629 | 25.0 | 227689.0 | 1.661257 | Y |
| 2 | IC 240-583404/4 | 1.0 | 1.369103 | 25.0 | 240632.0 | 1.369103 | Y |
| 3 | IC 240-583404/5 | 2.5 | 2.995375 | 25.0 | 240237.0 | 1.19815 | Y |
| 4 | IC 240-583404/6 | 6.25 | 8.274226 | 25.0 | 232768.0 | 1.323876 | Y |
| 5 | IC 240-583404/7 | 12.5 | 16.247425 | 25.0 | 236916.0 | 1.299794 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 33.73435 | 25.0 | 235547.0 | 1.349374 | Y |
| 7 | IC 240-583404/9 | 37.5 | 51.034091 | 25.0 | 239268.0 | 1.360909 | Y |
| 8 | IC 240-583404/10 | 50.0 | 66.394886 | 25.0 | 244253.0 | 1.327898 | Y |
| 9 | IC 240-583404/11 | 62.5 | 81.80639 | 25.0 | 237648.0 | 1.308902 | Y |






09/26/2023

## Calibration / 1,2-Dichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

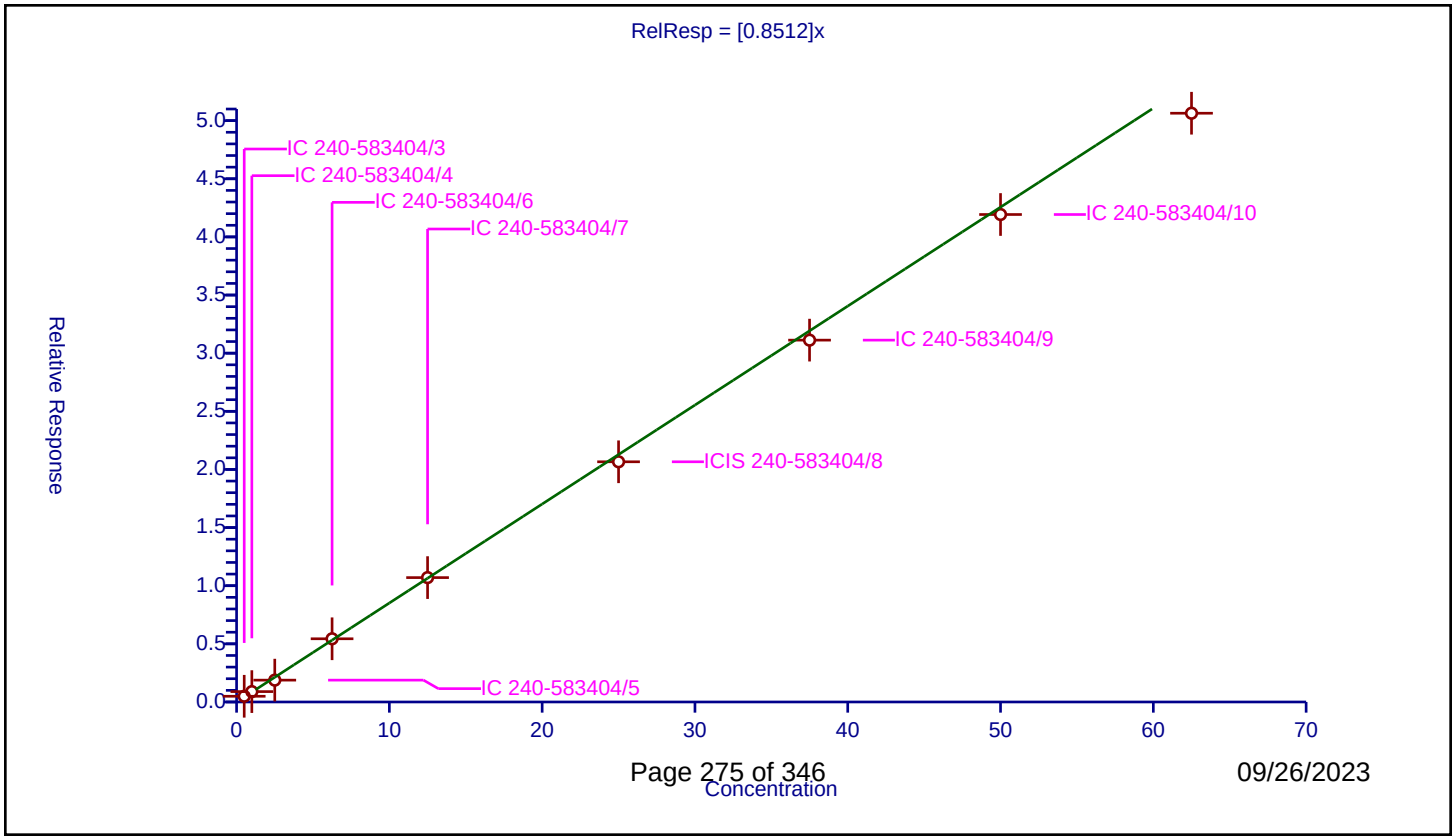
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.8512 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 260000 |
| **Relative Standard Error:** | 7.5 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.992 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.492887 | 25.0 | 227689.0 | 0.985774 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.892857 | 25.0 | 240632.0 | 0.892857 | Y |
| 3 | IC 240-583404/5 | 2.5 | 1.87929 | 25.0 | 240237.0 | 0.751716 | Y |
| 4 | IC 240-583404/6 | 6.25 | 5.436422 | 25.0 | 232768.0 | 0.869827 | Y |
| 5 | IC 240-583404/7 | 12.5 | 10.697146 | 25.0 | 236916.0 | 0.855772 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 20.659465 | 25.0 | 235547.0 | 0.826379 | Y |
| 7 | IC 240-583404/9 | 37.5 | 31.120856 | 25.0 | 239268.0 | 0.829889 | Y |
| 8 | IC 240-583404/10 | 50.0 | 41.926609 | 25.0 | 244253.0 | 0.838532 | Y |
| 9 | IC 240-583404/11 | 62.5 | 50.636551 | 25.0 | 237648.0 | 0.810185 | Y |






09/26/2023

## Calibration / 1,2-Dibromo-3-Chloropropane

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

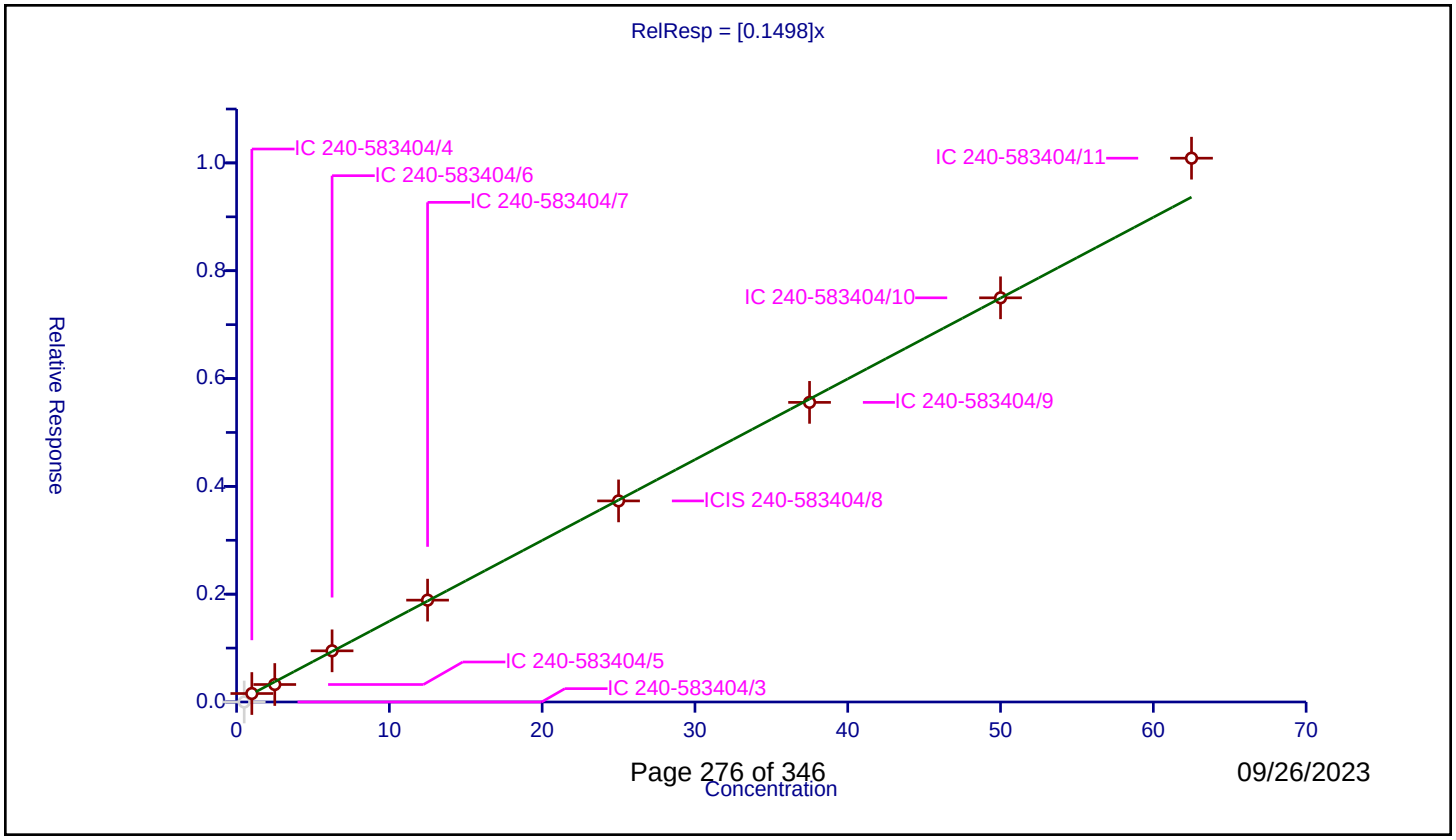
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1498 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 52100 |
| **Relative Standard Error:** | 6.2 |
| **Correlation Coefficient:** | 0.998 |
| **Coefficient of Determination (Adjusted):** | 0.995 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.0 | 25.0 | 227689.0 | 0.0 | N |
| 2 | IC 240-583404/4 | 1.0 | 0.157294 | 25.0 | 240632.0 | 0.157294 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.324367 | 25.0 | 240237.0 | 0.129747 | Y |
| 4 | IC 240-583404/6 | 6.25 | 0.949014 | 25.0 | 232768.0 | 0.151842 | Y |
| 5 | IC 240-583404/7 | 12.5 | 1.889277 | 25.0 | 236916.0 | 0.151142 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 3.729935 | 25.0 | 235547.0 | 0.149197 | Y |
| 7 | IC 240-583404/9 | 37.5 | 5.558203 | 25.0 | 239268.0 | 0.148219 | Y |
| 8 | IC 240-583404/10 | 50.0 | 7.497554 | 25.0 | 244253.0 | 0.149951 | Y |
| 9 | IC 240-583404/11 | 62.5 | 10.087819 | 25.0 | 237648.0 | 0.161405 | Y |



## Calibration / 1,2,4-Trichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

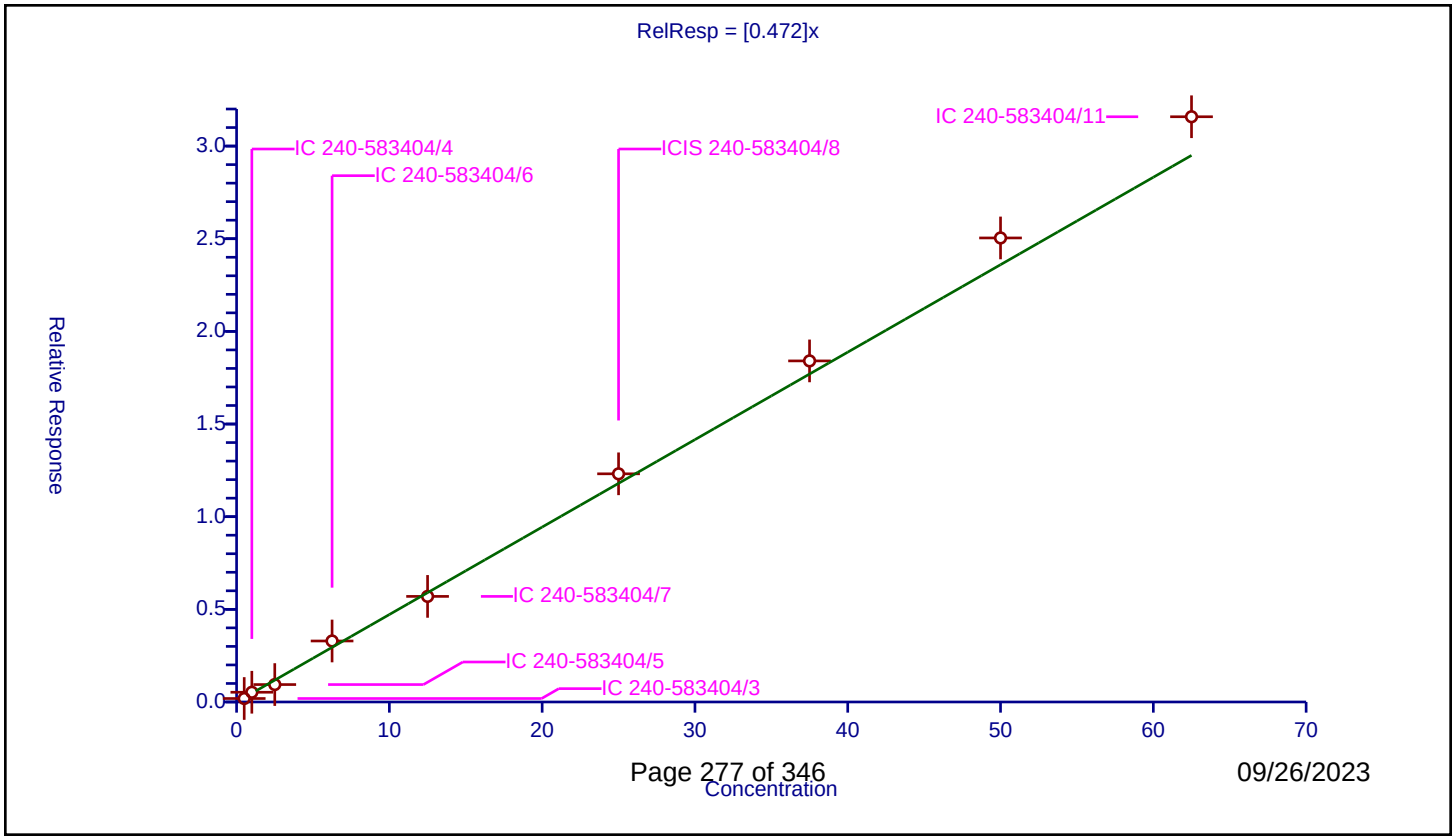
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.472 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 157000 |
| **Relative Standard Error:** | 12.4 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.982 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.187207 | 25.0 | 227689.0 | 0.374414 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.525283 | 25.0 | 240632.0 | 0.525283 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.939905 | 25.0 | 240237.0 | 0.375962 | Y |
| 4 | IC 240-583404/6 | 6.25 | 3.29126 | 25.0 | 232768.0 | 0.526602 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.698328 | 25.0 | 236916.0 | 0.455866 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 12.312723 | 25.0 | 235547.0 | 0.492509 | Y |
| 7 | IC 240-583404/9 | 37.5 | 18.406139 | 25.0 | 239268.0 | 0.49083 | Y |
| 8 | IC 240-583404/10 | 50.0 | 25.042374 | 25.0 | 244253.0 | 0.500847 | Y |
| 9 | IC 240-583404/11 | 62.5 | 31.58274 | 25.0 | 237648.0 | 0.505324 | Y |



## Calibration / Hexachlorobutadiene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

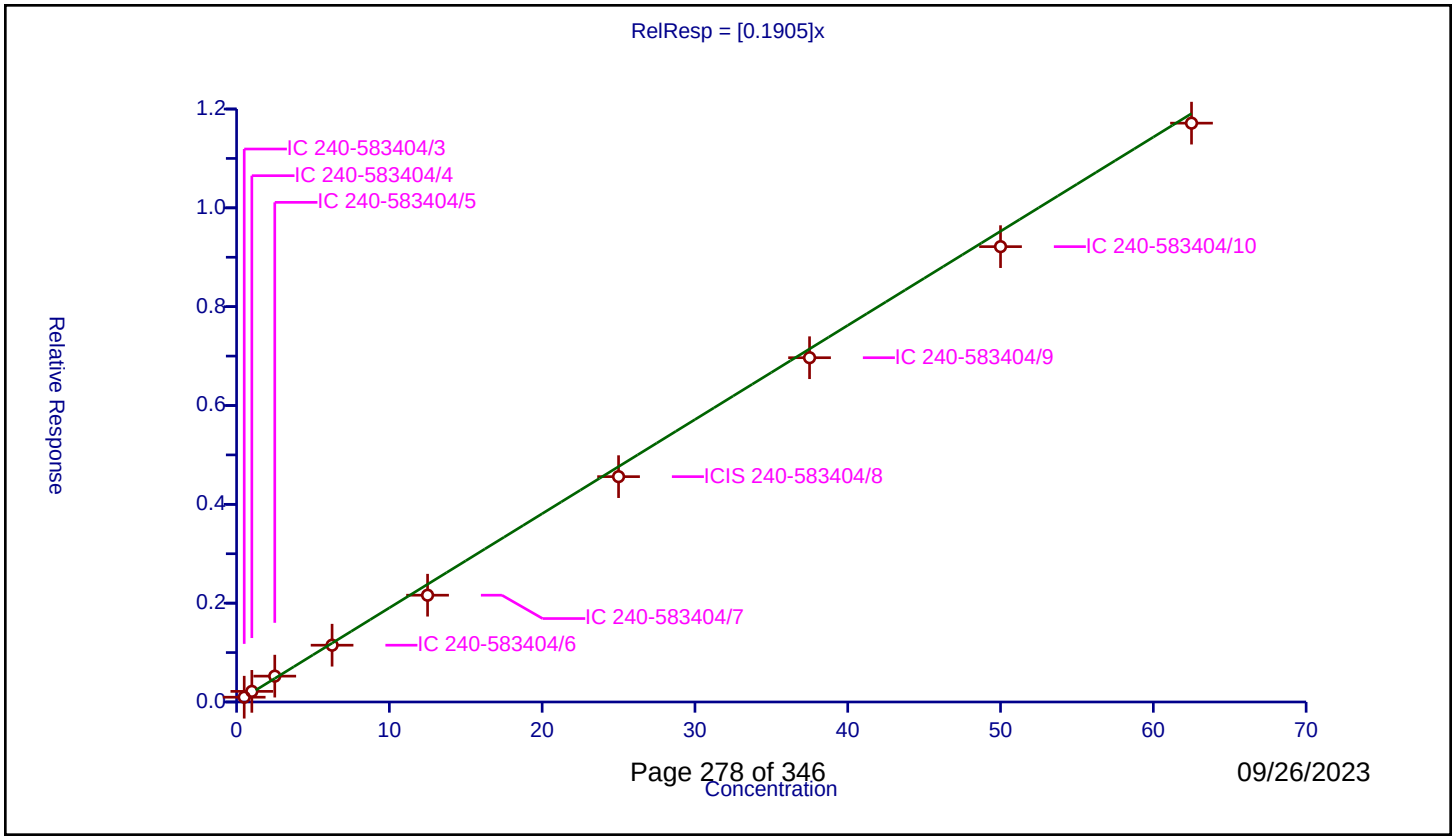
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.1905 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 58500 |
| **Relative Standard Error:** | 7.1 |
| **Correlation Coefficient:** | 1.000 |
| **Coefficient of Determination (Adjusted):** | 0.993 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.096952 | 25.0 | 227689.0 | 0.193905 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.214955 | 25.0 | 240632.0 | 0.214955 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.523025 | 25.0 | 240237.0 | 0.20921 | Y |
| 4 | IC 240-583404/6 | 6.25 | 1.149213 | 25.0 | 232768.0 | 0.183874 | Y |
| 5 | IC 240-583404/7 | 12.5 | 2.160998 | 25.0 | 236916.0 | 0.17288 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 4.560343 | 25.0 | 235547.0 | 0.182414 | Y |
| 7 | IC 240-583404/9 | 37.5 | 6.966978 | 25.0 | 239268.0 | 0.185786 | Y |
| 8 | IC 240-583404/10 | 50.0 | 9.214728 | 25.0 | 244253.0 | 0.184295 | Y |
| 9 | IC 240-583404/11 | 62.5 | 11.713753 | 25.0 | 237648.0 | 0.18742 | Y |






09/26/2023

## Calibration / Naphthalene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

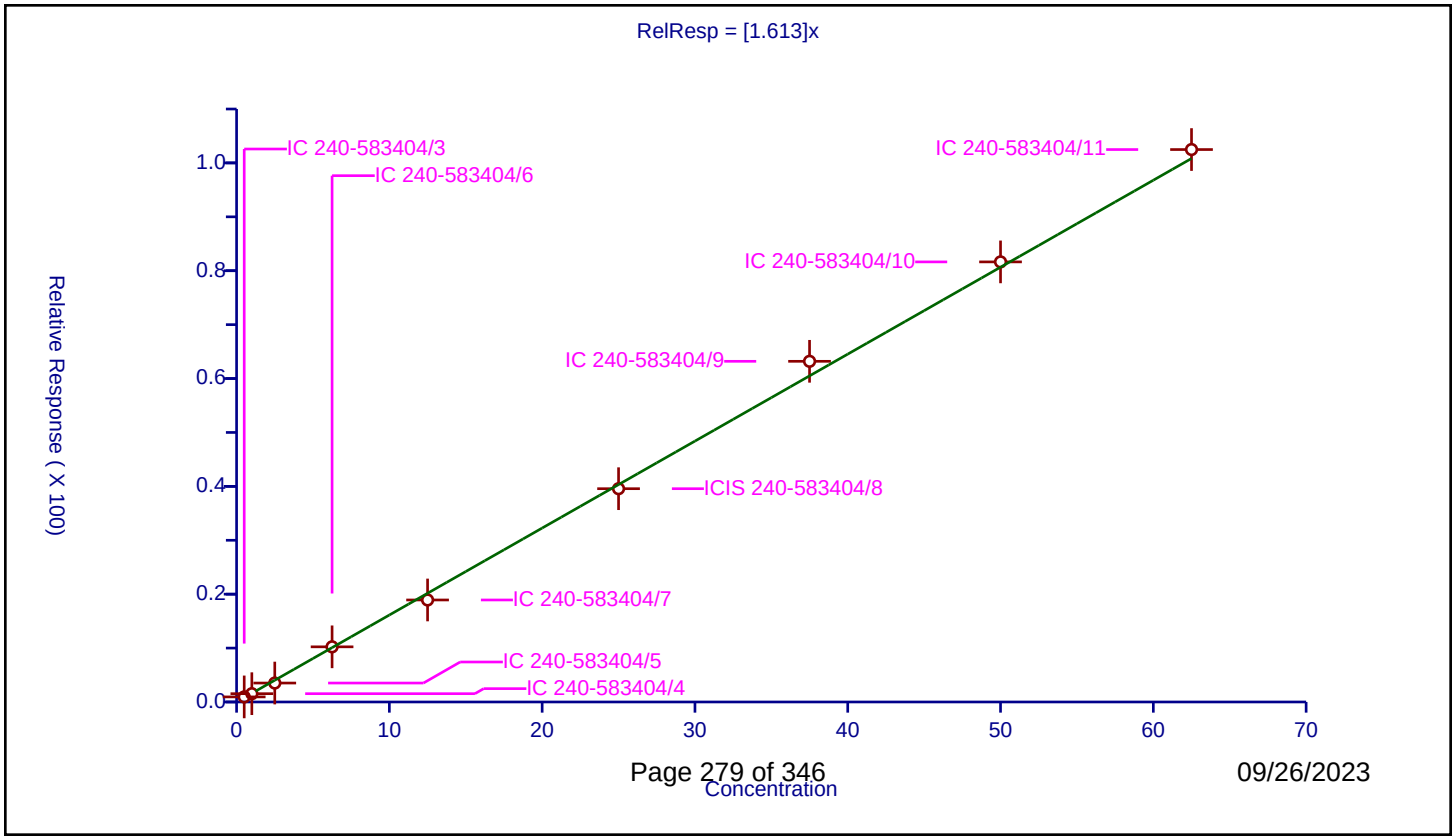
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 1.613 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 516000 |
| **Relative Standard Error:** | 8.1 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.991 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.940757 | 25.0 | 227689.0 | 1.881514 | Y |
| 2 | IC 240-583404/4 | 1.0 | 1.540527 | 25.0 | 240632.0 | 1.540527 | Y |
| 3 | IC 240-583404/5 | 2.5 | 3.513614 | 25.0 | 240237.0 | 1.405445 | Y |
| 4 | IC 240-583404/6 | 6.25 | 10.231969 | 25.0 | 232768.0 | 1.637115 | Y |
| 5 | IC 240-583404/7 | 12.5 | 18.922952 | 25.0 | 236916.0 | 1.513836 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 39.565352 | 25.0 | 235547.0 | 1.582614 | Y |
| 7 | IC 240-583404/9 | 37.5 | 63.197753 | 25.0 | 239268.0 | 1.685273 | Y |
| 8 | IC 240-583404/10 | 50.0 | 81.640246 | 25.0 | 244253.0 | 1.632805 | Y |
| 9 | IC 240-583404/11 | 62.5 | 102.482874 | 25.0 | 237648.0 | 1.639726 | Y |






09/26/2023

## Calibration / 1,2,3-Trichlorobenzene

| | |
|---|---|
| **Curve Type:** | Average |
| **Weighting:** | Conc_Sq |
| **Origin:** | Force |
| **Dependency:** | Response |
| **Calib Mode:** | ISTD |
| **Response Base:** | AREA |
| **RF Rounding:** | 0 |

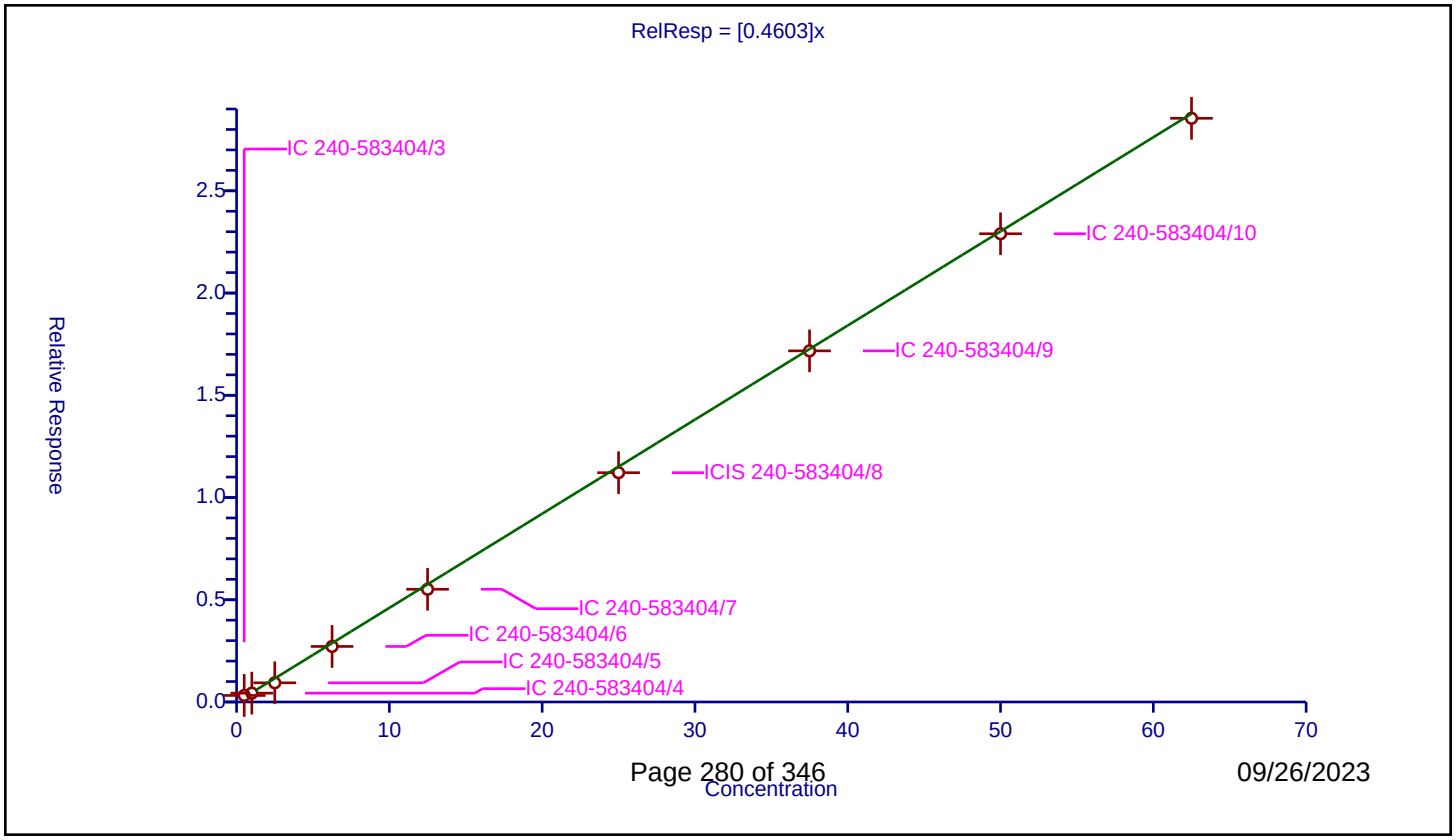
**Curve Coefficients**

| | |
|---|---|
| **Intercept:** | 0 |
| **Slope:** | 0.4603 |

**Error Coefficients**

| | |
|---|---|
| **Standard Error:** | 144000 |
| **Relative Standard Error:** | 15.6 |
| **Correlation Coefficient:** | 0.999 |
| **Coefficient of Determination (Adjusted):** | 0.965 |

| ID | Level | Concentration | Rel. Resp. | IS Amount | IS Response | RRF | Used |
|---|---|---|---|---|---|---|---|
| 1 | IC 240-583404/3 | 0.5 | 0.319515 | 25.0 | 227689.0 | 0.63903 | Y |
| 2 | IC 240-583404/4 | 1.0 | 0.43178 | 25.0 | 240632.0 | 0.43178 | Y |
| 3 | IC 240-583404/5 | 2.5 | 0.937824 | 25.0 | 240237.0 | 0.37513 | Y |
| 4 | IC 240-583404/6 | 6.25 | 2.716009 | 25.0 | 232768.0 | 0.434561 | Y |
| 5 | IC 240-583404/7 | 12.5 | 5.512924 | 25.0 | 236916.0 | 0.441034 | Y |
| 6 | ICIS 240-583404/8 | 25.0 | 11.214322 | 25.0 | 235547.0 | 0.448573 | Y |
| 7 | IC 240-583404/9 | 37.5 | 17.172167 | 25.0 | 239268.0 | 0.457924 | Y |
| 8 | IC 240-583404/10 | 50.0 | 22.8989 | 25.0 | 244253.0 | 0.457978 | Y |
| 9 | IC 240-583404/11 | 62.5 | 28.546316 | 25.0 | 237648.0 | 0.456741 | Y |



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: ICV 240-583404/14 Calibration Date: 08/09/2023 18:40

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 14:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 17:30

Lab File ID: 1794291.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2539 | 0.2355 | 0.1000 | 0.0116 | 0.0125 | -7.3 | 30.0 |
| Chloromethane | Ave | 0.4586 | 0.4695 | 0.1000 | 0.0128 | 0.0125 | 2.4 | 30.0 |
| Vinyl chloride | Ave | 0.3082 | 0.2955 | 0.1000 | 0.0120 | 0.0125 | -4.1 | 30.0 |
| Butadiene | Ave | 0.4150 | 0.4004 | | 0.0121 | 0.0125 | -3.5 | 30.0 |
| Bromomethane | Ave | 0.0457 | 0.0593 | 0.0500 | 0.0163 | 0.0125 | 30.0 | 30.0 |
| Chloroethane | Ave | 0.1447 | 0.1378 | 0.0500 | 0.0119 | 0.0125 | -4.8 | 30.0 |
| Trichlorofluoromethane | Ave | 0.2953 | 0.2895 | 0.1000 | 0.0123 | 0.0125 | -2.0 | 30.0 |
| Dichlorofluoromethane | Ave | 0.3874 | 0.3566 | | 0.0115 | 0.0125 | -7.9 | 30.0 |
| Ethyl ether | Ave | 0.2267 | 0.2386 | | 0.0263 | 0.0250 | 5.3 | 30.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Lin1 | | 0.1131 | 0.0500 | 0.0245 | 0.0250 | -1.9 | 30.0 |
| Acrolein | Lin1 | | 0.0185 | | 0.130 | 0.125 | 4.3 | 30.0 |
| 1,1-Dichloroethene | Ave | 0.1441 | 0.1340 | 0.1000 | 0.0232 | 0.0250 | -7.0 | 30.0 |
| Acetone | Lin1 | | 0.1307 | 0.0100 | 0.0509 | 0.0500 | 1.7 | 50.0 |
| Iodomethane | Ave | 0.1267 | 0.0927 | | 0.0183 | 0.0250 | -26.8 | 30.0 |
| Carbon disulfide | Ave | 0.4191 | 0.4241 | 0.1000 | 0.0253 | 0.0250 | 1.2 | 30.0 |
| 3-Chloro-1-propene | Ave | 0.1000 | 0.0996 | | 0.0249 | 0.0250 | -0.4 | 30.0 |
| Methyl acetate | Ave | 0.3602 | 0.3450 | 0.0500 | 0.0479 | 0.0500 | -4.2 | 50.0 |
| Methylene Chloride | Lin1 | | 0.1769 | 0.1000 | 0.0265 | 0.0250 | 6.0 | 50.0 |
| 2-Methyl-2-propanol | Ave | 0.0403 | 0.0431 | | 0.267 | 0.250 | 7.0 | 30.0 |
| Methyl tert-butyl ether | Ave | 0.5070 | 0.5369 | 0.1000 | 0.0265 | 0.0250 | 5.9 | 30.0 |
| trans-1,2-Dichloroethene | Ave | 0.1706 | 0.1570 | 0.1000 | 0.0230 | 0.0250 | -8.0 | 30.0 |
| Acrylonitrile | Ave | 0.1776 | 0.1827 | | 0.257 | 0.250 | 2.9 | 30.0 |
| Hexane | Ave | 0.0365 | 0.0395 | | 0.0271 | 0.0250 | 8.3 | 30.0 |
| 1,1-Dichloroethane | Ave | 0.4469 | 0.4371 | 0.2000 | 0.0244 | 0.0250 | -2.2 | 30.0 |
| Vinyl acetate | Ave | 0.5798 | 0.5584 | | 0.0241 | 0.0250 | -3.7 | 30.0 |
| 2,2-Dichloropropane | Ave | 0.2743 | 0.2515 | | 0.0229 | 0.0250 | -8.3 | 30.0 |
| cis-1,2-Dichloroethene | Ave | 0.1945 | 0.1896 | 0.1000 | 0.0244 | 0.0250 | -2.5 | 30.0 |
| 2-Butanone (MEK) | Lin1 | | 0.2141 | 0.0100 | 0.0534 | 0.0500 | 6.7 | 50.0 |
| Tetrahydrofuran | Ave | 0.1448 | 0.1421 | | 0.0491 | 0.0500 | -1.8 | 30.0 |
| Chlorobromomethane | Lin1 | | 0.0842 | | 0.0267 | 0.0250 | 6.7 | 30.0 |
| Chloroform | Ave | 0.3015 | 0.2946 | 0.2000 | 0.0244 | 0.0250 | -2.3 | 30.0 |
| Cyclohexane | Ave | 0.5452 | 0.5266 | 0.1000 | 0.0241 | 0.0250 | -3.4 | 30.0 |
| 1,1,1-Trichloroethane | Ave | 0.2605 | 0.2453 | 0.1000 | 0.0235 | 0.0250 | -5.9 | 30.0 |
| Carbon tetrachloride | Ave | 0.2260 | 0.2254 | 0.1000 | 0.0249 | 0.0250 | -0.3 | 30.0 |
| 1,1-Dichloropropene | Ave | 0.2399 | 0.2358 | | 0.0246 | 0.0250 | -1.7 | 30.0 |
| Benzene | Ave | 0.7194 | 0.7458 | 0.5000 | 0.0259 | 0.0250 | 3.7 | 30.0 |
| Isobutyl alcohol | Ave | 0.0163 | 0.0175 | | 0.672 | 0.625 | 7.5 | 30.0 |
| 1,2-Dichloroethane | Ave | 0.3235 | 0.3337 | 0.1000 | 0.0258 | 0.0250 | 3.1 | 30.0 |
| n-Heptane | Ave | 0.0433 | 0.0419 | | 0.0242 | 0.0250 | -3.2 | 30.0 |
| Trichloroethene | Ave | 0.1840 | 0.1846 | 0.1500 | 0.0251 | 0.0250 | 0.4 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: ICV 240-583404/14 Calibration Date: 08/09/2023 18:40

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 14:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 17:30

Lab File ID: 1794291.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methylcyclohexane | Ave | 0.2826 | 0.2680 | 0.1000 | 0.0237 | 0.0250 | -5.2 | 30.0 |
| 1,2-Dichloropropane | Ave | 0.2604 | 0.2561 | 0.1000 | 0.0246 | 0.0250 | -1.6 | 30.0 |
| Dibromomethane | Lin1 | | 0.0981 | | 0.0260 | 0.0250 | 4.1 | 30.0 |
| 1,4-Dioxane | Ave | 0.0025 | 0.0031 | | 0.620 | 0.500 | 24.0 | 50.0 |
| Dichlorobromomethane | Ave | 0.2447 | 0.2287 | 0.1500 | 0.0234 | 0.0250 | -6.5 | 30.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1558 | 0.3185 | | 0.0511 | 0.0250 | 104.5* | 30.0 |
| cis-1,3-Dichloropropene | Ave | 0.3034 | 0.3008 | 0.1500 | 0.0248 | 0.0250 | -0.9 | 50.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.4090 | 0.3999 | 0.0500 | 0.0489 | 0.0500 | -2.2 | 50.0 |
| Toluene | Ave | 0.9345 | 0.9578 | 0.4000 | 0.0256 | 0.0250 | 2.5 | 30.0 |
| trans-1,3-Dichloropropene | Ave | 0.3424 | 0.3354 | 0.1000 | 0.0245 | 0.0250 | -2.0 | 30.0 |
| Ethyl methacrylate | Ave | 0.3348 | 0.3197 | | 0.0239 | 0.0250 | -4.5 | 30.0 |
| 1,1,2-Trichloroethane | Ave | 0.2033 | 0.1959 | 0.1000 | 0.0241 | 0.0250 | -3.7 | 30.0 |
| Tetrachloroethene | Ave | 0.1927 | 0.1904 | 0.1500 | 0.0247 | 0.0250 | -1.2 | 30.0 |
| 1,3-Dichloropropane | Ave | 0.3596 | 0.3503 | | 0.0244 | 0.0250 | -2.6 | 30.0 |
| 2-Hexanone | Ave | 0.3445 | 0.3548 | 0.0500 | 0.0515 | 0.0500 | 3.0 | 50.0 |
| Chlorodibromomethane | Ave | 0.2126 | 0.2105 | | 0.0248 | 0.0250 | -1.0 | 30.0 |
| Ethylene Dibromide | Ave | 0.2032 | 0.2104 | | 0.0259 | 0.0250 | 3.5 | 30.0 |
| Chlorobenzene | Ave | 0.6222 | 0.6332 | 0.3000 | 0.0254 | 0.0250 | 1.8 | 30.0 |
| Ethylbenzene | Ave | 0.3508 | 0.3585 | | 0.0256 | 0.0250 | 2.2 | 30.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.2112 | 0.2202 | | 0.0261 | 0.0250 | 4.2 | 30.0 |
| m-Xylene & p-Xylene | Ave | 0.4176 | 0.4188 | | 0.0251 | 0.0250 | 0.3 | 30.0 |
| o-Xylene | Ave | 0.4095 | 0.4146 | | 0.0253 | 0.0250 | 1.2 | 30.0 |
| Styrene | Ave | 0.6808 | 0.6982 | 0.3000 | 0.0256 | 0.0250 | 2.5 | 30.0 |
| Bromoform | Ave | 0.1686 | 0.1607 | 0.1000 | 0.0238 | 0.0250 | -4.6 | 30.0 |
| Isopropylbenzene | Ave | 1.040 | 1.010 | 0.1000 | 0.0243 | 0.0250 | -2.9 | 30.0 |
| Bromobenzene | Ave | 0.4844 | 0.4623 | | 0.0239 | 0.0250 | -4.5 | 30.0 |
| 1,1,2,2-Tetrachloroethane | Lin1 | | 0.5294 | 0.3000 | 0.0249 | 0.0250 | -0.5 | 30.0 |
| N-Propylbenzene | Ave | 0.5350 | 0.5501 | | 0.0257 | 0.0250 | 2.8 | 30.0 |
| 1,2,3-Trichloropropane | Ave | 0.1674 | 0.1899 | | 0.0284 | 0.0250 | 13.5 | 30.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.3366 | 0.3225 | | 0.0240 | 0.0250 | -4.2 | 30.0 |
| 2-Chlorotoluene | Ave | 0.4462 | 0.4491 | | 0.0252 | 0.0250 | 0.7 | 30.0 |
| 1,3,5-Trimethylbenzene | Ave | 1.652 | 1.615 | | 0.0244 | 0.0250 | -2.2 | 30.0 |
| 4-Chlorotoluene | Ave | 0.4662 | 0.4541 | | 0.0244 | 0.0250 | -2.6 | 30.0 |
| tert-Butylbenzene | Ave | 1.271 | 1.280 | | 0.0252 | 0.0250 | 0.7 | 30.0 |
| 1,2,4-Trimethylbenzene | Ave | 1.708 | 1.711 | | 0.0250 | 0.0250 | 0.2 | 30.0 |
| sec-Butylbenzene | Ave | 1.950 | 1.934 | | 0.0248 | 0.0250 | -0.8 | 30.0 |
| 4-Isopropyltoluene | Ave | 1.562 | 1.626 | | 0.0260 | 0.0250 | 4.1 | 30.0 |
| 1,3-Dichlorobenzene | Ave | 0.8501 | 0.9016 | 0.6000 | 0.0265 | 0.0250 | 6.1 | 30.0 |
| 1,4-Dichlorobenzene | Ave | 0.8892 | 0.9049 | 0.5000 | 0.0254 | 0.0250 | 1.8 | 30.0 |
| n-Butylbenzene | Ave | 1.355 | 1.348 | | 0.0249 | 0.0250 | -0.6 | 30.0 |
| 1,2-Dichlorobenzene | Ave | 0.8512 | 0.8573 | 0.4000 | 0.0252 | 0.0250 | 0.7 | 30.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: ICV 240-583404/14 Calibration Date: 08/09/2023 18:40

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 14:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 17:30

Lab File ID: 1794291.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1498 | 0.1558 | 0.0500 | 0.0260 | 0.0250 | 4.0 | 50.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.4720 | 0.4987 | 0.2000 | 0.0264 | 0.0250 | 5.7 | 50.0 |
| Hexachlorobutadiene | Ave | 0.1905 | 0.2001 | | 0.0263 | 0.0250 | 5.0 | 50.0 |
| Naphthalene | Ave | 1.613 | 1.655 | | 0.0256 | 0.0250 | 2.6 | 50.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.4603 | 0.4558 | | 0.0248 | 0.0250 | -1.0 | 30.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2709 | 0.2662 | | 0.0246 | 0.0250 | -1.8 | 30.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3800 | 0.3755 | | 0.0247 | 0.0250 | -1.2 | 30.0 |
| Toluene-d8 (Surr) | Ave | 1.292 | 1.273 | | 0.0246 | 0.0250 | -1.5 | 30.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.5023 | 0.5047 | | 0.0251 | 0.0250 | 0.5 | 30.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794291.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 09-Aug-2023 18:40:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-014
Operator ID: 402279 Instrument ID: A3UX17
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 09:13:36 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 10-Aug-2023 09:21:55

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 97 | 541995 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 447679 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 231326 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.903 | 0.000 | 93 | 144259 | 25.0 | 24.6 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 95 | 203494 | 25.0 | 24.7 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 570077 | 25.0 | 24.6 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 88 | 225929 | 25.0 | 25.1 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 96 | 63825 | 12.5 | 11.6 | |
| 10 Chloromethane | 50 | 1.432 | 1.432 | 0.000 | 99 | 127223 | 12.5 | 12.8 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 97 | 80079 | 12.5 | 12.0 | |
| 12 Butadiene | 54 | 1.539 | 1.551 | -0.012 | 93 | 108515 | 12.5 | 12.1 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 94 | 16083 | 12.5 | 16.3 | |
| 14 Chloroethane | 64 | 1.919 | 1.930 | -0.011 | 92 | 37330 | 12.5 | 11.9 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.156 | 0.000 | 98 | 78446 | 12.5 | 12.3 | |
| 15 Dichlorofluoromethane | 67 | 2.168 | 2.179 | -0.011 | 97 | 96643 | 12.5 | 11.5 | |
| 17 Ethyl ether | 59 | 2.500 | 2.511 | -0.011 | 97 | 129337 | 25.0 | 26.3 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 94 | 61300 | 25.0 | 24.5 | |
| 18 Acrolein | 56 | 2.737 | 2.749 | -0.012 | 53 | 50124 | 125.0 | 130.4 | |
| 19 1,1-Dichloroethene | 96 | 2.749 | 2.749 | 0.000 | 89 | 72621 | 25.0 | 23.2 | |
| 22 Acetone | 43 | 2.938 | 2.950 | -0.012 | 99 | 141705 | 50.0 | 50.9 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 82 | 50244 | 25.0 | 18.3 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 99 | 229857 | 25.0 | 25.3 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 89 | 53981 | 25.0 | 24.9 | |
| 26 Methyl acetate | 43 | 3.342 | 3.341 | 0.001 | 100 | 374021 | 50.0 | 47.9 | |
| 28 Methylene Chloride | 84 | 3.484 | 3.496 | -0.012 | 89 | 95887 | 25.0 | 26.5 | |
| 29 2-Methyl-2-propanol | 59 | 3.733 | 3.733 | 0.000 | 100 | 233536 | 250.0 | 267.4 | |
| 31 Methyl tert-butyl ether | 73 | 3.792 | 3.804 | -0.012 | 97 | 291014 | 25.0 | 26.5 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.804 | 3.816 | -0.012 | 87 | 85088 | 25.0 | 23.0 | |
| 30 Acrylonitrile | 53 | 4.006 | 4.017 | -0.011 | 99 | 990061 | 250.0 | 257.1 | |
| 33 Hexane | 86 | 4.124 | 4.136 | -0.012 | 94 | 21397 | 25.0 | 27.1 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.551 | -0.012 | 95 | 236885 | 25.0 | 24.4 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 302658 | 25.0 | 24.1 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.274 | -0.011 | 87 | 136294 | 25.0 | 22.9 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 52 | 102756 | 25.0 | 24.4 | |
| 39 2-Butanone (MEK) | 43 | 5.393 | 5.405 | -0.012 | 97 | 232043 | 50.0 | 53.4 | |
| 46 Tetrahydrofuran | 42 | 5.607 | 5.606 | 0.001 | 88 | 154033 | 50.0 | 49.1 | |
| 45 Chlorobromomethane | 128 | 5.618 | 5.618 | 0.000 | 95 | 45623 | 25.0 | 26.7 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 94 | 159660 | 25.0 | 24.4 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 89 | 285392 | 25.0 | 24.1 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.832 | 0.000 | 93 | 132930 | 25.0 | 23.5 | |
| 51 Carbon tetrachloride | 117 | 5.950 | 5.962 | -0.012 | 95 | 122145 | 25.0 | 24.9 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 85 | 127778 | 25.0 | 24.6 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 95 | 404210 | 25.0 | 25.9 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 95 | 195958 | 625.0 | 671.6 | |
| 54 1,2-Dichloroethane | 62 | 6.354 | 6.354 | 0.000 | 94 | 180858 | 25.0 | 25.8 | |
| 57 n-Heptane | 100 | 6.437 | 6.448 | -0.011 | 96 | 22697 | 25.0 | 24.2 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 89 | 100065 | 25.0 | 25.1 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 90 | 145260 | 25.0 | 23.7 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 93 | 138822 | 25.0 | 24.6 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 92 | 53172 | 25.0 | 26.0 | |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.001 | 88 | 33449 | 500.0 | 619.9 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 94 | 123955 | 25.0 | 23.4 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 86 | 172614 | 25.0 | 51.1 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.836 | 0.000 | 86 | 163043 | 25.0 | 24.8 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.978 | 0.000 | 96 | 433490 | 50.0 | 48.9 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 96 | 428797 | 25.0 | 25.6 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 96 | 150165 | 25.0 | 24.5 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 92 | 143131 | 25.0 | 23.9 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 93 | 87681 | 25.0 | 24.1 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 96 | 85243 | 25.0 | 24.7 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 95 | 156808 | 25.0 | 24.4 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 98 | 317674 | 50.0 | 51.5 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 91 | 94255 | 25.0 | 24.8 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 98 | 94171 | 25.0 | 25.9 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 91 | 283486 | 25.0 | 25.4 | |
| 85 Ethylbenzene | 106 | 9.378 | 9.377 | 0.001 | 97 | 160514 | 25.0 | 25.6 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 94 | 98557 | 25.0 | 26.1 | |
| 86 m-Xylene & p-Xylene | 106 | 9.484 | 9.472 | 0.012 | 98 | 187506 | 25.0 | 25.1 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 97 | 185618 | 25.0 | 25.3 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 94 | 312571 | 25.0 | 25.6 | |
| 89 Bromoform | 173 | 10.030 | 10.030 | 0.000 | 97 | 71953 | 25.0 | 23.8 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 451947 | 25.0 | 24.3 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 93 | 106950 | 25.0 | 23.9 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 95 | 122463 | 25.0 | 24.9 | |
| 97 N-Propylbenzene | 120 | 10.469 | 10.468 | 0.000 | 99 | 127247 | 25.0 | 25.7 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 90 | 43938 | 25.0 | 28.4 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 75 | 74607 | 25.0 | 24.0 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 96 | 103894 | 25.0 | 25.2 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 95 | 373568 | 25.0 | 24.4 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 98 | 105049 | 25.0 | 24.4 | |
| 102 tert-Butylbenzene | 119 | 10.884 | 10.883 | 0.001 | 95 | 296089 | 25.0 | 25.2 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.943 | 0.000 | 98 | 395764 | 25.0 | 25.0 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 447396 | 25.0 | 24.8 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 376146 | 25.0 | 26.0 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.192 | 0.012 | 98 | 208562 | 25.0 | 26.5 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 97 | 209317 | 25.0 | 25.4 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 98 | 311744 | 25.0 | 24.9 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 96 | 198327 | 25.0 | 25.2 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 82 | 36040 | 25.0 | 26.0 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 94 | 115357 | 25.0 | 26.4 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 93 | 46281 | 25.0 | 26.3 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 98 | 382879 | 25.0 | 25.6 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 98 | 105431 | 25.0 | 24.8 | |
| S 126 Total BTEX | 1 | | | | 0 | | 125.0 | 127.5 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 96.4 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 50.4 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASGW_00520 | Amount Added: 10.00 | Units: uL | | |
| VMFASAW_00475 | Amount Added: 20.00 | Units: uL | | |
| VMFASPW_00504 | Amount Added: 20.00 | Units: uL | | |
| vm40ml_vials_00024 | Amount Added: 0.00 | Units: | Run Reagent | |
| vm25UX18IS_00007 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vm25UX18SS_00008 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vmDist_H2o_00239 | Amount Added: 0.00 | Units: | Run Reagent | |

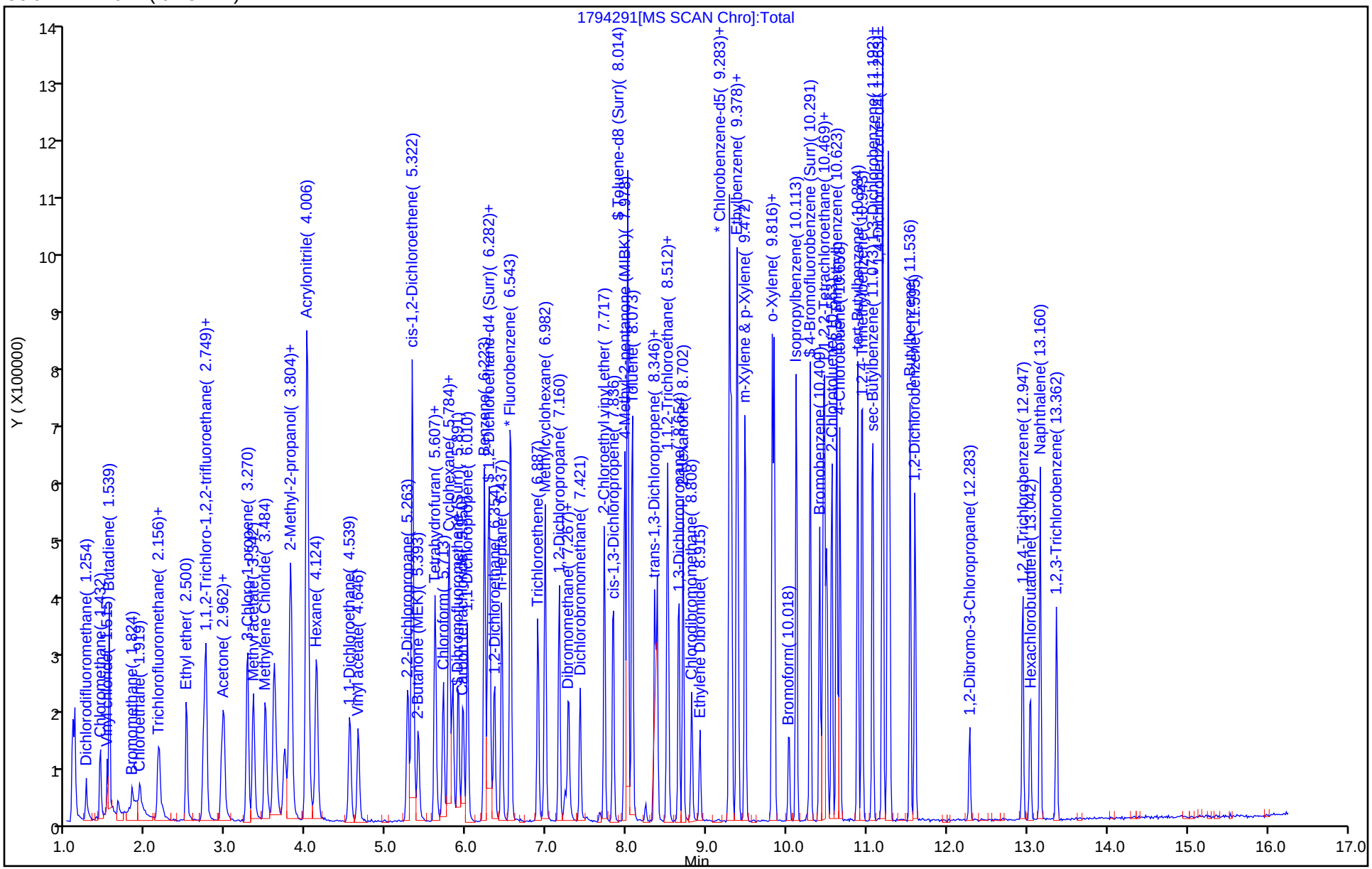
Report Date: 11-Aug-2023 09:13:38 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794291.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 18:40:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | ICV | | | Worklist Smp#: | 14 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 13 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: ICV 240-583404/28 Calibration Date: 08/10/2023 00:07

Instrument ID: A3UX17 Calib Start Date: 01/31/2023 13:18

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 01/31/2023 18:19

Lab File ID: 1794305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Pentachloroethane | Ave | 0.1124 | | | | 0.0500 | | |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794305.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 10-Aug-2023 00:07:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-028
Operator ID: 402279 Instrument ID: A3UX17
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 09:13:36 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 98 | 538583 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 92 | 432888 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 235388 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.903 | -0.012 | 94 | 143022 | 25.0 | 24.5 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 200057 | 25.0 | 24.4 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 557603 | 25.0 | 24.9 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 88 | 215949 | 25.0 | 24.8 | |
| 25 Acetonitrile | 41 | 3.425 | 3.425 | 0.000 | 98 | 341168 | 250.0 | 234.0 | |
| 36 Isopropyl ether | 87 | 4.563 | 4.575 | -0.012 | 98 | 80726 | 25.0 | 23.1 | |
| 37 2-Chloro-1,3-butadiene | 53 | 4.610 | 4.610 | 0.000 | 89 | 272954 | 25.0 | 23.5 | |
| 38 Tert-butyl ethyl ether | 59 | 5.049 | 5.061 | -0.012 | 96 | 488048 | 25.0 | 25.1 | |
| 40 Ethyl acetate | 43 | 5.441 | 5.441 | 0.001 | 99 | 399625 | 50.0 | 45.7 | |
| 43 Propionitrile | 54 | 5.571 | 5.571 | 0.000 | 99 | 357243 | 250.0 | 226.4 | |
| 44 Methacrylonitrile | 41 | 5.678 | 5.678 | 0.000 | 97 | 1322360 | 250.0 | 234.6 | |
| 55 Tert-amyl methyl ether | 73 | 6.342 | 6.342 | 0.000 | 81 | 320782 | 25.0 | 23.0 | |
| 58 n-Butanol | 56 | 6.947 | 6.947 | 0.000 | 86 | 130100 | 625.0 | 523.0 | |
| 60 Ethyl acrylate | 55 | 7.065 | 7.065 | 0.000 | 98 | 250538 | 25.0 | 23.0 | |
| 62 Methyl methacrylate | 41 | 7.267 | 7.267 | 0.000 | 90 | 333748 | 50.0 | 46.2 | |
| 67 2-Nitropropane | 41 | 7.706 | 7.705 | 0.001 | 95 | 116499 | 50.0 | 43.2 | |
| 78 n-Butyl acetate | 56 | 8.785 | 8.785 | 0.000 | 98 | 125789 | 25.0 | 23.0 | |
| 82 1-Chlorohexane | 91 | 9.271 | 9.271 | 0.000 | 78 | 115667 | 25.0 | 23.4 | |
| 91 Cyclohexanone | 55 | 10.267 | 10.267 | 0.000 | 92 | 88574 | 250.0 | 222.1 | |
| 110 1,2,3-Trimethylbenzene | 105 | 11.299 | 11.299 | 0.000 | 99 | 388036 | 25.0 | 22.7 | |
| 111 Benzyl chloride | 91 | 11.405 | 11.405 | 0.000 | 99 | 194677 | 25.0 | 22.1 | |
| 105 Pentachloroethane | 167 | | 11.968 | | | | ND | ND | |
| 116 1,3,5-Trichlorobenzene | 180 | 12.401 | 12.401 | 0.000 | 97 | 114685 | 25.0 | 21.8 | |
| 121 2-Methylnaphthalene | 142 | 14.109 | 14.109 | 0.000 | 98 | 273755 | 50.0 | 41.8 | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASA9W_00416 | Amount Added: | 20.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

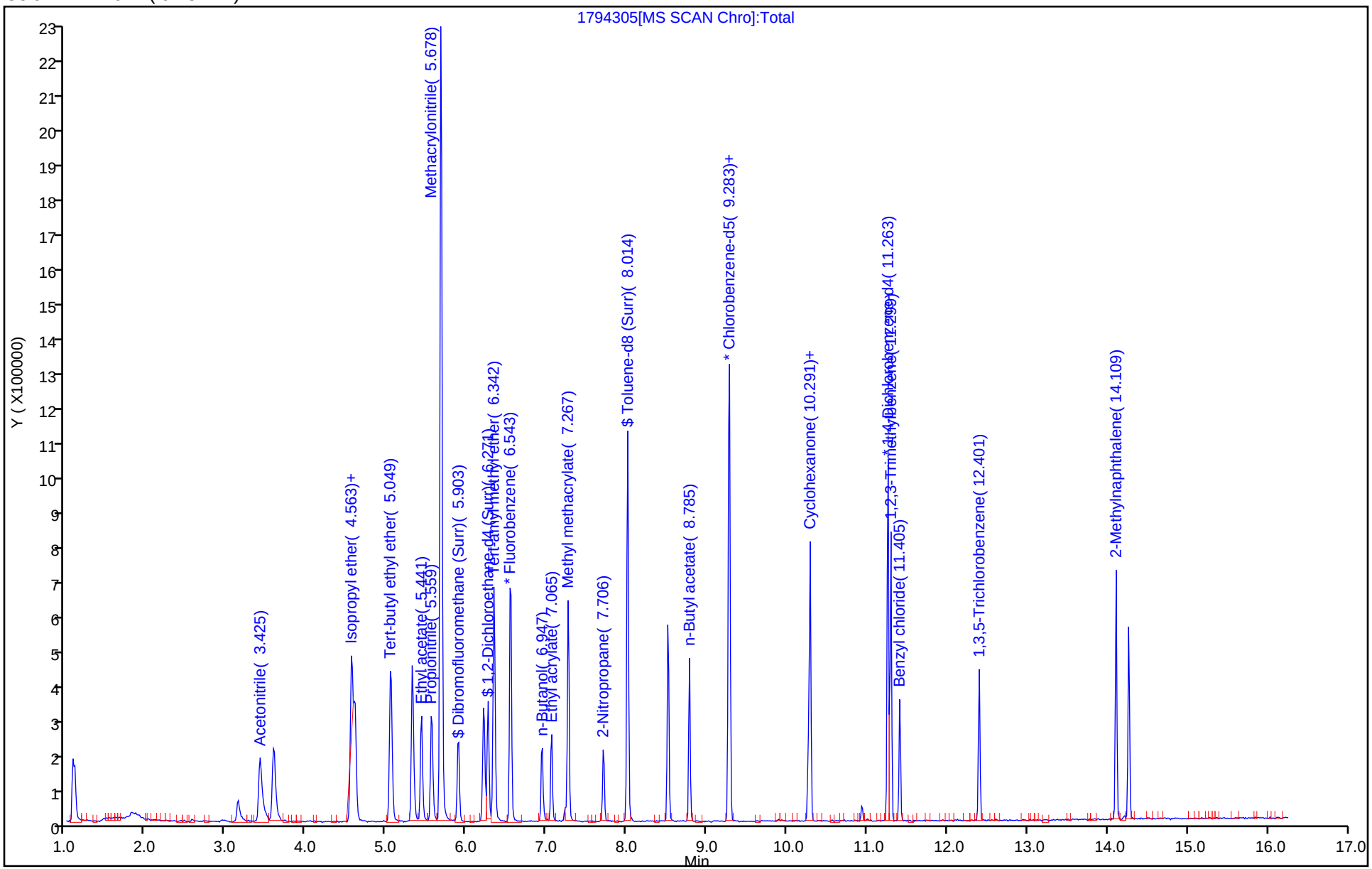
Report Date: 11-Aug-2023 09:13:50 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794305.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 00:07:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | icv | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: ICV 240-583404/28 Calibration Date: 08/10/2023 00:07

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 14:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 17:30

Lab File ID: 1794305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dibromofluoromethane (Surr) | Ave | 0.2709 | 0.2656 | | 0.0245 | 0.0250 | -2.0 | 30.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3800 | 0.3715 | | 0.0244 | 0.0250 | -2.2 | 30.0 |
| Toluene-d8 (Surr) | Ave | 1.292 | 1.288 | | 0.0249 | 0.0250 | -0.3 | 30.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.5023 | 0.4989 | | 0.0248 | 0.0250 | -0.7 | 30.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794305.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 10-Aug-2023 00:07:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-028
Operator ID: 402279 Instrument ID: A3UX17
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 09:13:36 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 98 | 538583 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 92 | 432888 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 235388 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.903 | -0.012 | 94 | 143022 | 25.0 | 24.5 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 200057 | 25.0 | 24.4 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 557603 | 25.0 | 24.9 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 88 | 215949 | 25.0 | 24.8 | |
| 25 Acetonitrile | 41 | 3.425 | 3.425 | 0.000 | 98 | 341168 | 250.0 | 234.0 | |
| 36 Isopropyl ether | 87 | 4.563 | 4.575 | -0.012 | 98 | 80726 | 25.0 | 23.1 | |
| 37 2-Chloro-1,3-butadiene | 53 | 4.610 | 4.610 | 0.000 | 89 | 272954 | 25.0 | 23.5 | |
| 38 Tert-butyl ethyl ether | 59 | 5.049 | 5.061 | -0.012 | 96 | 488048 | 25.0 | 25.1 | |
| 40 Ethyl acetate | 43 | 5.441 | 5.441 | 0.001 | 99 | 399625 | 50.0 | 45.7 | |
| 43 Propionitrile | 54 | 5.571 | 5.571 | 0.000 | 99 | 357243 | 250.0 | 226.4 | |
| 44 Methacrylonitrile | 41 | 5.678 | 5.678 | 0.000 | 97 | 1322360 | 250.0 | 234.6 | |
| 55 Tert-amyl methyl ether | 73 | 6.342 | 6.342 | 0.000 | 81 | 320782 | 25.0 | 23.0 | |
| 58 n-Butanol | 56 | 6.947 | 6.947 | 0.000 | 86 | 130100 | 625.0 | 523.0 | |
| 60 Ethyl acrylate | 55 | 7.065 | 7.065 | 0.000 | 98 | 250538 | 25.0 | 23.0 | |
| 62 Methyl methacrylate | 41 | 7.267 | 7.267 | 0.000 | 90 | 333748 | 50.0 | 46.2 | |
| 67 2-Nitropropane | 41 | 7.706 | 7.705 | 0.001 | 95 | 116499 | 50.0 | 43.2 | |
| 78 n-Butyl acetate | 56 | 8.785 | 8.785 | 0.000 | 98 | 125789 | 25.0 | 23.0 | |
| 82 1-Chlorohexane | 91 | 9.271 | 9.271 | 0.000 | 78 | 115667 | 25.0 | 23.4 | |
| 91 Cyclohexanone | 55 | 10.267 | 10.267 | 0.000 | 92 | 88574 | 250.0 | 222.1 | |
| 110 1,2,3-Trimethylbenzene | 105 | 11.299 | 11.299 | 0.000 | 99 | 388036 | 25.0 | 22.7 | |
| 111 Benzyl chloride | 91 | 11.405 | 11.405 | 0.000 | 99 | 194677 | 25.0 | 22.1 | |
| 105 Pentachloroethane | 167 | | 11.968 | | | | ND | ND | |
| 116 1,3,5-Trichlorobenzene | 180 | 12.401 | 12.401 | 0.000 | 97 | 114685 | 25.0 | 21.8 | |
| 121 2-Methylnaphthalene | 142 | 14.109 | 14.109 | 0.000 | 98 | 273755 | 50.0 | 41.8 | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASA9W_00416 | Amount Added: | 20.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

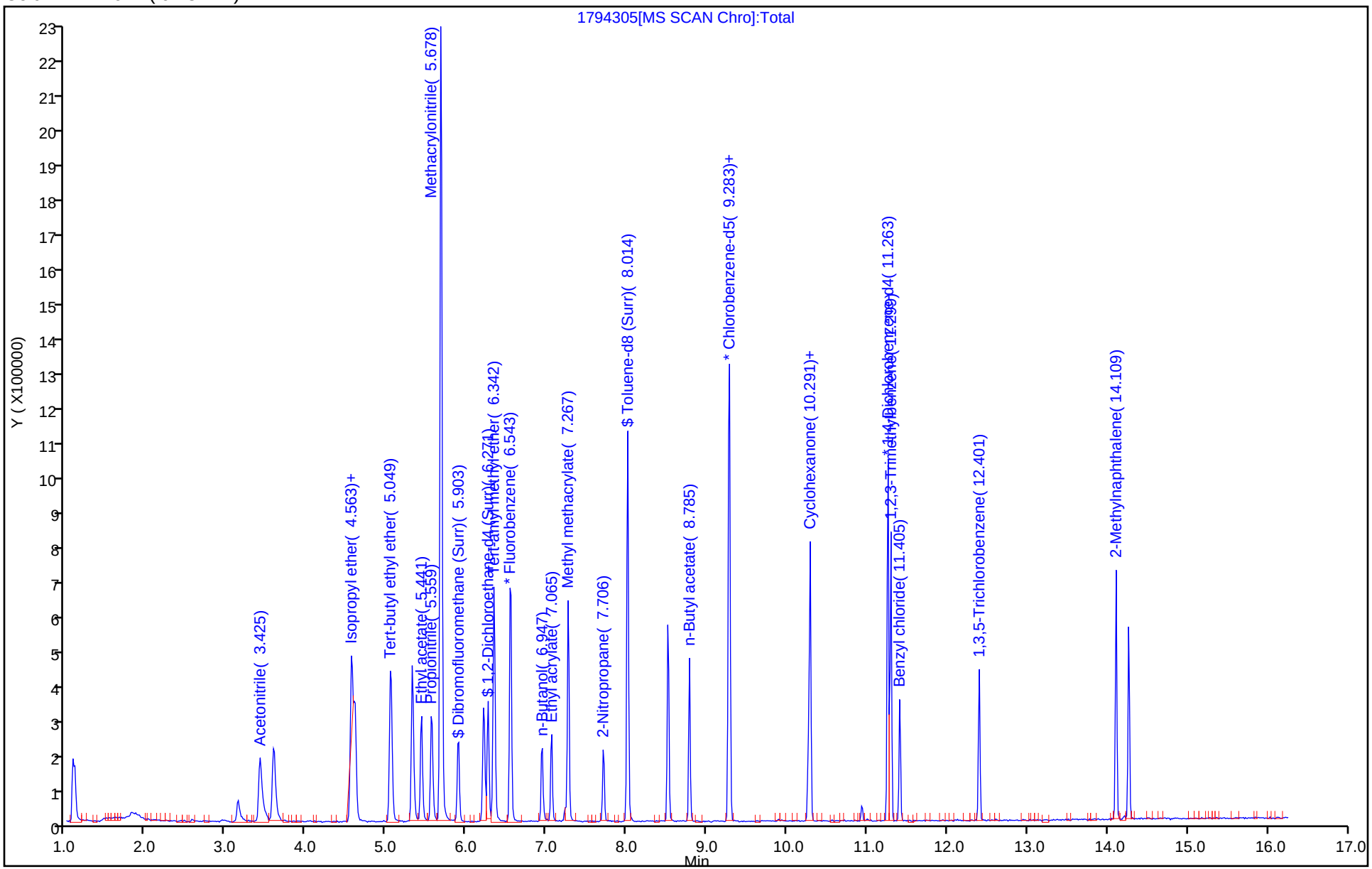
Report Date: 11-Aug-2023 09:13:50 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794305.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 00:07:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | icv | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: ICV 240-583404/28 Calibration Date: 08/10/2023 00:07

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 20:14

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 23:21

Lab File ID: 1794305.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Acetonitrile | Lin1 | | 0.0633 | | 0.234 | 0.250 | -6.4 | 30.0 |
| Isopropyl ether | Ave | 0.1620 | 0.1499 | | 0.0231 | 0.0250 | -7.5 | 30.0 |
| 2-Chloro-1,3-butadiene | Ave | 0.5386 | 0.5068 | | 0.0235 | 0.0250 | -5.9 | 30.0 |
| Tert-butyl ethyl ether | Ave | 0.9012 | 0.9062 | | 0.0251 | 0.0250 | 0.5 | 30.0 |
| Ethyl acetate | Ave | 0.4062 | 0.3710 | | 0.0457 | 0.0500 | -8.7 | 30.0 |
| Propionitrile | Ave | 0.0732 | 0.0663 | | 0.226 | 0.250 | -9.4 | 30.0 |
| Methacrylonitrile | Ave | 0.2617 | 0.2455 | | 0.235 | 0.250 | -6.2 | 30.0 |
| Tert-amyl methyl ether | Ave | 0.6468 | 0.5956 | | 0.0230 | 0.0250 | -7.9 | 30.0 |
| n-Butanol | Lin1 | | 0.0120 | | 0.523 | 0.625 | -16.3 | 30.0 |
| Ethyl acrylate | Ave | 0.5060 | 0.4652 | | 0.0230 | 0.0250 | -8.1 | 30.0 |
| Methyl methacrylate | Ave | 0.3355 | 0.3098 | | 0.0462 | 0.0500 | -7.6 | 30.0 |
| 2-Nitropropane | Ave | 0.1251 | 0.1082 | | 0.0432 | 0.0500 | -13.5 | 30.0 |
| n-Butyl acetate | Ave | 0.3158 | 0.2906 | | 0.0230 | 0.0250 | -8.0 | 30.0 |
| 1-Chlorohexane | Ave | 0.2849 | 0.2672 | | 0.0234 | 0.0250 | -6.2 | 30.0 |
| Cyclohexanone | Lin1 | | 0.0376 | | 0.222 | 0.250 | -11.1 | 30.0 |
| 1,2,3-Trimethylbenzene | Ave | 1.817 | 1.648 | | 0.0227 | 0.0250 | -9.3 | 30.0 |
| Benzyl chloride | Ave | 0.9346 | 0.8270 | | 0.0221 | 0.0250 | -11.5 | 30.0 |
| 1,3,5-Trichlorobenzene | Ave | 0.5583 | 0.4872 | | 0.0218 | 0.0250 | -12.7 | 30.0 |
| 2-Methylnaphthalene | Ave | 0.6962 | 0.5815 | | 0.0418 | 0.0500 | -16.5 | 30.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794305.D
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 10-Aug-2023 00:07:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-028
Operator ID: 402279 Instrument ID: A3UX17
Sublist:

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 09:13:36 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.555 | 0.000 | 98 | 538583 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 92 | 432888 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 235388 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.903 | -0.012 | 94 | 143022 | 25.0 | 24.5 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 92 | 200057 | 25.0 | 24.4 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 557603 | 25.0 | 24.9 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 88 | 215949 | 25.0 | 24.8 | |
| 25 Acetonitrile | 41 | 3.425 | 3.425 | 0.000 | 98 | 341168 | 250.0 | 234.0 | |
| 36 Isopropyl ether | 87 | 4.563 | 4.575 | -0.012 | 98 | 80726 | 25.0 | 23.1 | |
| 37 2-Chloro-1,3-butadiene | 53 | 4.610 | 4.610 | 0.000 | 89 | 272954 | 25.0 | 23.5 | |
| 38 Tert-butyl ethyl ether | 59 | 5.049 | 5.061 | -0.012 | 96 | 488048 | 25.0 | 25.1 | |
| 40 Ethyl acetate | 43 | 5.441 | 5.441 | 0.001 | 99 | 399625 | 50.0 | 45.7 | |
| 43 Propionitrile | 54 | 5.571 | 5.571 | 0.000 | 99 | 357243 | 250.0 | 226.4 | |
| 44 Methacrylonitrile | 41 | 5.678 | 5.678 | 0.000 | 97 | 1322360 | 250.0 | 234.6 | |
| 55 Tert-amyl methyl ether | 73 | 6.342 | 6.342 | 0.000 | 81 | 320782 | 25.0 | 23.0 | |
| 58 n-Butanol | 56 | 6.947 | 6.947 | 0.000 | 86 | 130100 | 625.0 | 523.0 | |
| 60 Ethyl acrylate | 55 | 7.065 | 7.065 | 0.000 | 98 | 250538 | 25.0 | 23.0 | |
| 62 Methyl methacrylate | 41 | 7.267 | 7.267 | 0.000 | 90 | 333748 | 50.0 | 46.2 | |
| 67 2-Nitropropane | 41 | 7.706 | 7.705 | 0.001 | 95 | 116499 | 50.0 | 43.2 | |
| 78 n-Butyl acetate | 56 | 8.785 | 8.785 | 0.000 | 98 | 125789 | 25.0 | 23.0 | |
| 82 1-Chlorohexane | 91 | 9.271 | 9.271 | 0.000 | 78 | 115667 | 25.0 | 23.4 | |
| 91 Cyclohexanone | 55 | 10.267 | 10.267 | 0.000 | 92 | 88574 | 250.0 | 222.1 | |
| 110 1,2,3-Trimethylbenzene | 105 | 11.299 | 11.299 | 0.000 | 99 | 388036 | 25.0 | 22.7 | |
| 111 Benzyl chloride | 91 | 11.405 | 11.405 | 0.000 | 99 | 194677 | 25.0 | 22.1 | |
| 105 Pentachloroethane | 167 | | 11.968 | | | | ND | ND | |
| 116 1,3,5-Trichlorobenzene | 180 | 12.401 | 12.401 | 0.000 | 97 | 114685 | 25.0 | 21.8 | |
| 121 2-Methylnaphthalene | 142 | 14.109 | 14.109 | 0.000 | 98 | 273755 | 50.0 | 41.8 | |

## QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASA9W_00416 | Amount Added: | 20.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00239 | Amount Added: | 0.00 | Units: | Run Reagent |

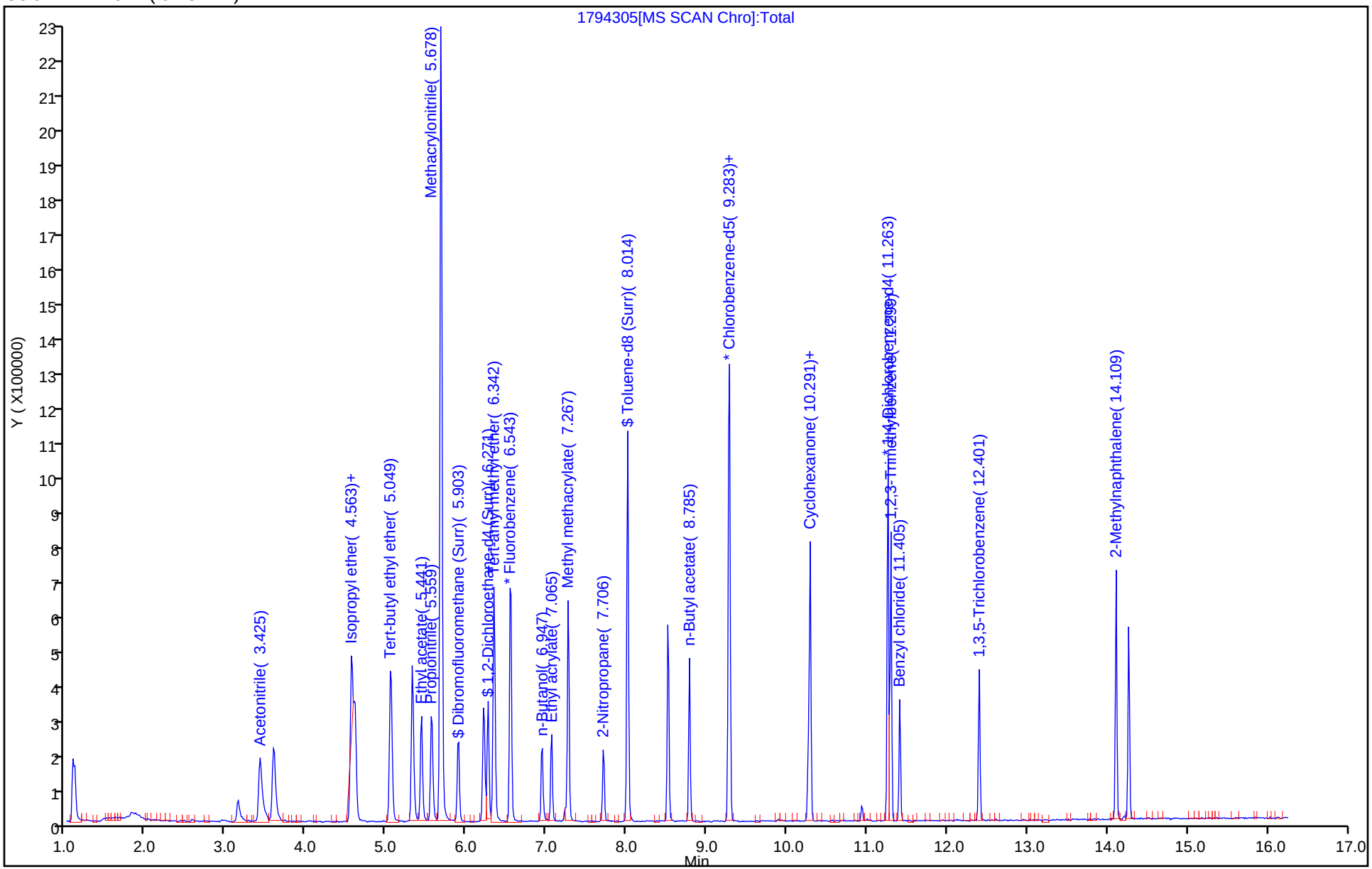
Report Date: 11-Aug-2023 09:13:50 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794305.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 10-Aug-2023 00:07:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | icv | | | Worklist Smp#: | 28 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 27 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: CCVIS 240-588192/3 Calibration Date: 09/22/2023 10:00

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 14:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 17:30

Lab File ID: 1795306.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | Ave | 0.2539 | 0.1940 | 0.1000 | 0.0191 | 0.0250 | -23.6* | 20.0 |
| Chloromethane | Ave | 0.4586 | 0.3059 | 0.1000 | 0.0167 | 0.0250 | -33.3* | 20.0 |
| Vinyl chloride | Ave | 0.3082 | 0.3183 | 0.1000 | 0.0258 | 0.0250 | 3.3 | 20.0 |
| Butadiene | Ave | 0.4150 | 0.4305 | | 0.0259 | 0.0250 | 3.7 | 20.0 |
| Bromomethane | Ave | 0.0457 | 0.0548 | 0.0500 | 0.0300 | 0.0250 | 20.0 | 20.0 |
| Chloroethane | Ave | 0.1447 | 0.1580 | 0.0500 | 0.0273 | 0.0250 | 9.2 | 20.0 |
| Trichlorofluoromethane | Ave | 0.2953 | 0.2748 | 0.1000 | 0.0233 | 0.0250 | -6.9 | 20.0 |
| Dichlorofluoromethane | Ave | 0.3874 | 0.3704 | | 0.0239 | 0.0250 | -4.4 | 20.0 |
| Ethyl ether | Ave | 0.2267 | 0.2259 | | 0.0249 | 0.0250 | -0.4 | 20.0 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | Lin1 | | 0.1670 | 0.0500 | 0.0364 | 0.0250 | 45.6* | 20.0 |
| Acrolein | Lin1 | | 0.0259 | | 0.184 | 0.125 | 47.1* | 20.0 |
| 1,1-Dichloroethene | Ave | 0.1441 | 0.1574 | 0.1000 | 0.0273 | 0.0250 | 9.2 | 20.0 |
| Acetone | Lin1 | | 0.1203 | 0.0100 | 0.0466 | 0.0500 | -6.9 | 50.0 |
| Iodomethane | Ave | 0.1267 | 0.1032 | | 0.0204 | 0.0250 | -18.6 | 20.0 |
| Carbon disulfide | Ave | 0.4191 | 0.5097 | 0.1000 | 0.0304 | 0.0250 | 21.6* | 20.0 |
| 3-Chloro-1-propene | Ave | 0.1000 | 0.0970 | | 0.0243 | 0.0250 | -3.0 | 20.0 |
| Methyl acetate | Ave | 0.3602 | 0.3090 | 0.0500 | 0.0429 | 0.0500 | -14.2 | 50.0 |
| Methylene Chloride | Lin1 | | 0.1798 | 0.1000 | 0.0270 | 0.0250 | 7.8 | 50.0 |
| 2-Methyl-2-propanol | Ave | 0.0403 | 0.0327 | | 0.203 | 0.250 | -18.9 | 20.0 |
| Methyl tert-butyl ether | Ave | 0.5070 | 0.5049 | 0.1000 | 0.0249 | 0.0250 | -0.4 | 20.0 |
| trans-1,2-Dichloroethene | Ave | 0.1706 | 0.1843 | 0.1000 | 0.0270 | 0.0250 | 8.0 | 20.0 |
| Acrylonitrile | Ave | 0.1776 | 0.1580 | | 0.222 | 0.250 | -11.0 | 20.0 |
| Hexane | Ave | 0.0365 | 0.0423 | | 0.0290 | 0.0250 | 15.9 | 20.0 |
| 1,1-Dichloroethane | Ave | 0.4469 | 0.4335 | 0.2000 | 0.0243 | 0.0250 | -3.0 | 20.0 |
| Vinyl acetate | Ave | 0.5798 | 0.5136 | | 0.0221 | 0.0250 | -11.4 | 20.0 |
| 2,2-Dichloropropane | Ave | 0.2743 | 0.2794 | | 0.0255 | 0.0250 | 1.9 | 20.0 |
| cis-1,2-Dichloroethene | Ave | 0.1945 | 0.1858 | 0.1000 | 0.0239 | 0.0250 | -4.5 | 20.0 |
| 2-Butanone (MEK) | Lin1 | | 0.1770 | 0.0100 | 0.0440 | 0.0500 | -12.0 | 50.0 |
| Tetrahydrofuran | Ave | 0.1448 | 0.1179 | | 0.0407 | 0.0500 | -18.6 | 20.0 |
| Chlorobromomethane | Lin1 | | 0.0923 | | 0.0293 | 0.0250 | 17.1 | 20.0 |
| Chloroform | Ave | 0.3015 | 0.2840 | 0.2000 | 0.0235 | 0.0250 | -5.8 | 20.0 |
| Cyclohexane | Ave | 0.5452 | 0.5085 | 0.1000 | 0.0233 | 0.0250 | -6.7 | 20.0 |
| 1,1,1-Trichloroethane | Ave | 0.2605 | 0.2648 | 0.1000 | 0.0254 | 0.0250 | 1.6 | 20.0 |
| Carbon tetrachloride | Ave | 0.2260 | 0.2493 | 0.1000 | 0.0276 | 0.0250 | 10.3 | 20.0 |
| 1,1-Dichloropropene | Ave | 0.2399 | 0.2367 | | 0.0247 | 0.0250 | -1.3 | 20.0 |
| Benzene | Ave | 0.7194 | 0.7464 | 0.5000 | 0.0259 | 0.0250 | 3.8 | 20.0 |
| Isobutyl alcohol | Ave | 0.0163 | 0.0138 | | 0.528 | 0.625 | -15.6 | 20.0 |
| 1,2-Dichloroethane | Ave | 0.3235 | 0.3185 | 0.1000 | 0.0246 | 0.0250 | -1.6 | 20.0 |
| n-Heptane | Ave | 0.0433 | 0.0409 | | 0.0237 | 0.0250 | -5.4 | 20.0 |
| Trichloroethene | Ave | 0.1840 | 0.2109 | 0.1500 | 0.0287 | 0.0250 | 14.6 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: CCVIS 240-588192/3 Calibration Date: 09/22/2023 10:00

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 14:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 17:30

Lab File ID: 1795306.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| Methylcyclohexane | Ave | 0.2826 | 0.2852 | 0.1000 | 0.0252 | 0.0250 | 0.9 | 20.0 |
| 1,2-Dichloropropane | Ave | 0.2604 | 0.2607 | 0.1000 | 0.0250 | 0.0250 | 0.1 | 20.0 |
| Dibromomethane | Lin1 | | 0.1060 | | 0.0282 | 0.0250 | 12.7 | 20.0 |
| 1,4-Dioxane | Ave | 0.0025 | 0.0024 | | 0.479 | 0.500 | -4.1 | 50.0 |
| Dichlorobromomethane | Ave | 0.2447 | 0.2073 | 0.1500 | 0.0212 | 0.0250 | -15.3 | 20.0 |
| 2-Chloroethyl vinyl ether | Ave | 0.1558 | 0.1426 | | 0.0458 | 0.0500 | -8.5 | 20.0 |
| cis-1,3-Dichloropropene | Ave | 0.3034 | 0.3068 | 0.1500 | 0.0253 | 0.0250 | 1.1 | 50.0 |
| 4-Methyl-2-pentanone (MIBK) | Ave | 0.4090 | 0.3517 | 0.0500 | 0.0430 | 0.0500 | -14.0 | 50.0 |
| Toluene | Ave | 0.9345 | 0.9363 | 0.4000 | 0.0250 | 0.0250 | 0.2 | 20.0 |
| trans-1,3-Dichloropropene | Ave | 0.3424 | 0.3091 | 0.1000 | 0.0226 | 0.0250 | -9.7 | 20.0 |
| Ethyl methacrylate | Ave | 0.3348 | 0.2506 | | 0.0187 | 0.0250 | -25.1* | 20.0 |
| 1,1,2-Trichloroethane | Ave | 0.2033 | 0.1933 | 0.1000 | 0.0238 | 0.0250 | -4.9 | 20.0 |
| Tetrachloroethene | Ave | 0.1927 | 0.2224 | 0.1500 | 0.0288 | 0.0250 | 15.4 | 20.0 |
| 1,3-Dichloropropane | Ave | 0.3596 | 0.3423 | | 0.0238 | 0.0250 | -4.8 | 20.0 |
| 2-Hexanone | Ave | 0.3445 | 0.2995 | 0.0500 | 0.0435 | 0.0500 | -13.1 | 50.0 |
| Chlorodibromomethane | Ave | 0.2126 | 0.1986 | | 0.0233 | 0.0250 | -6.6 | 20.0 |
| Ethylene Dibromide | Ave | 0.2032 | 0.2159 | | 0.0266 | 0.0250 | 6.3 | 20.0 |
| Chlorobenzene | Ave | 0.6222 | 0.6561 | 0.3000 | 0.0264 | 0.0250 | 5.4 | 20.0 |
| Ethylbenzene | Ave | 0.3508 | 0.3497 | | 0.0249 | 0.0250 | -0.3 | 20.0 |
| 1,1,1,2-Tetrachloroethane | Ave | 0.2112 | 0.2472 | | 0.0293 | 0.0250 | 17.0 | 20.0 |
| m-Xylene & p-Xylene | Ave | 0.4176 | 0.4145 | | 0.0248 | 0.0250 | -0.7 | 20.0 |
| o-Xylene | Ave | 0.4095 | 0.3920 | | 0.0239 | 0.0250 | -4.3 | 20.0 |
| Styrene | Ave | 0.6808 | 0.6847 | 0.3000 | 0.0251 | 0.0250 | 0.6 | 20.0 |
| Bromoform | Ave | 0.1686 | 0.1648 | 0.1000 | 0.0244 | 0.0250 | -2.2 | 20.0 |
| Isopropylbenzene | Ave | 1.040 | 1.012 | 0.1000 | 0.0243 | 0.0250 | -2.7 | 20.0 |
| Bromobenzene | Ave | 0.4844 | 0.5190 | | 0.0268 | 0.0250 | 7.2 | 20.0 |
| 1,1,2,2-Tetrachloroethane | Lin1 | | 0.5239 | 0.3000 | 0.0246 | 0.0250 | -1.5 | 20.0 |
| N-Propylbenzene | Ave | 0.5350 | 0.6058 | | 0.0283 | 0.0250 | 13.2 | 20.0 |
| 1,2,3-Trichloropropane | Ave | 0.1674 | 0.1840 | | 0.0275 | 0.0250 | 9.9 | 20.0 |
| trans-1,4-Dichloro-2-butene | Ave | 0.3366 | 0.2760 | | 0.0205 | 0.0250 | -18.0 | 20.0 |
| 2-Chlorotoluene | Ave | 0.4462 | 0.4796 | | 0.0269 | 0.0250 | 7.5 | 20.0 |
| 1,3,5-Trimethylbenzene | Ave | 1.652 | 1.692 | | 0.0256 | 0.0250 | 2.4 | 20.0 |
| 4-Chlorotoluene | Ave | 0.4662 | 0.5216 | | 0.0280 | 0.0250 | 11.9 | 20.0 |
| tert-Butylbenzene | Ave | 1.271 | 1.378 | | 0.0271 | 0.0250 | 8.5 | 20.0 |
| 1,2,4-Trimethylbenzene | Ave | 1.708 | 1.758 | | 0.0257 | 0.0250 | 2.9 | 20.0 |
| sec-Butylbenzene | Ave | 1.950 | 2.022 | | 0.0259 | 0.0250 | 3.7 | 20.0 |
| 4-Isopropyltoluene | Ave | 1.562 | 1.711 | | 0.0274 | 0.0250 | 9.5 | 20.0 |
| 1,3-Dichlorobenzene | Ave | 0.8501 | 0.9822 | 0.6000 | 0.0289 | 0.0250 | 15.5 | 20.0 |
| 1,4-Dichlorobenzene | Ave | 0.8892 | 1.009 | 0.5000 | 0.0284 | 0.0250 | 13.4 | 20.0 |
| n-Butylbenzene | Ave | 1.355 | 1.301 | | 0.0240 | 0.0250 | -4.0 | 20.0 |
| 1,2-Dichlorobenzene | Ave | 0.8512 | 0.9817 | 0.4000 | 0.0288 | 0.0250 | 15.3 | 20.0 |

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Lab Sample ID: CCVIS 240-588192/3 Calibration Date: 09/22/2023 10:00

Instrument ID: A3UX17 Calib Start Date: 08/09/2023 14:24

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 08/09/2023 17:30

Lab File ID: 1795306.D Conc. Units: ng/uL Heated Purge: (Y/N) N

| ANALYTE | CURVE TYPE | AVE RRF | RRF | MIN RRF | CALC AMOUNT | SPIKE AMOUNT | %D | MAX %D |
|---|---|---|---|---|---|---|---|---|
| 1,2-Dibromo-3-Chloropropane | Ave | 0.1498 | 0.1240 | 0.0500 | 0.0207 | 0.0250 | -17.3 | 50.0 |
| 1,2,4-Trichlorobenzene | Ave | 0.4720 | 0.5734 | 0.2000 | 0.0304 | 0.0250 | 21.5 | 50.0 |
| Hexachlorobutadiene | Ave | 0.1905 | 0.2072 | | 0.0272 | 0.0250 | 8.8 | 50.0 |
| Naphthalene | Ave | 1.613 | 1.753 | | 0.0272 | 0.0250 | 8.6 | 50.0 |
| 1,2,3-Trichlorobenzene | Ave | 0.4603 | 0.5254 | | 0.0285 | 0.0250 | 14.1 | 20.0 |
| Dibromofluoromethane (Surr) | Ave | 0.2709 | 0.2693 | | 0.0249 | 0.0250 | -0.6 | 20.0 |
| 1,2-Dichloroethane-d4 (Surr) | Ave | 0.3800 | 0.3475 | | 0.0229 | 0.0250 | -8.5 | 20.0 |
| Toluene-d8 (Surr) | Ave | 1.292 | 1.171 | | 0.0227 | 0.0250 | -9.4 | 20.0 |
| 4-Bromofluorobenzene (Surr) | Ave | 0.5023 | 0.4164 | | 0.0207 | 0.0250 | -17.1 | 20.0 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795306.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 22-Sep-2023 10:00:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-003
Operator ID: 402279 Instrument ID: A3UX17
Sublist: chrom-8260_17*sub45

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 22-Sep-2023 10:37:05

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 98 | 480877 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 89 | 397033 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 94 | 204567 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 92 | 129516 | 25.0 | 24.9 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 93 | 167121 | 25.0 | 22.9 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 94 | 464925 | 25.0 | 22.7 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 94 | 165343 | 25.0 | 20.7 | |
| 9 Dichlorodifluoromethane | 85 | 1.254 | 1.254 | 0.000 | 97 | 93291 | 25.0 | 19.1 | |
| 10 Chloromethane | 50 | 1.420 | 1.420 | 0.000 | 99 | 147098 | 25.0 | 16.7 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 96 | 153065 | 25.0 | 25.8 | |
| 12 Butadiene | 54 | 1.539 | 1.539 | 0.000 | 93 | 207034 | 25.0 | 25.9 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 92 | 26338 | 25.0 | 30.0 | |
| 14 Chloroethane | 64 | 1.919 | 1.919 | 0.000 | 96 | 75992 | 25.0 | 27.3 | |
| 16 Trichlorofluoromethane | 101 | 2.144 | 2.144 | 0.000 | 97 | 132159 | 25.0 | 23.3 | |
| 15 Dichlorofluoromethane | 67 | 2.168 | 2.168 | 0.000 | 97 | 178140 | 25.0 | 23.9 | |
| 17 Ethyl ether | 59 | 2.500 | 2.500 | 0.000 | 97 | 108612 | 25.0 | 24.9 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 91 | 80289 | 25.0 | 36.4 | |
| 18 Acrolein | 56 | 2.737 | 2.737 | 0.000 | 99 | 62369 | 125.0 | 183.8 | |
| 19 1,1-Dichloroethene | 96 | 2.749 | 2.749 | 0.000 | 91 | 75682 | 25.0 | 27.3 | |
| 22 Acetone | 43 | 2.938 | 2.938 | 0.000 | 98 | 115684 | 50.0 | 46.6 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 65 | 49624 | 25.0 | 20.4 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 98 | 245113 | 25.0 | 30.4 | |
| 27 3-Chloro-1-propene | 76 | 3.270 | 3.270 | 0.000 | 86 | 46647 | 25.0 | 24.3 | |
| 26 Methyl acetate | 43 | 3.330 | 3.330 | 0.000 | 100 | 297176 | 50.0 | 42.9 | |
| 28 Methylene Chloride | 84 | 3.484 | 3.484 | 0.000 | 88 | 86476 | 25.0 | 27.0 | |
| 29 2-Methyl-2-propanol | 59 | 3.721 | 3.721 | 0.000 | 96 | 157090 | 250.0 | 202.7 | |
| 31 Methyl tert-butyl ether | 73 | 3.792 | 3.792 | 0.000 | 94 | 242787 | 25.0 | 24.9 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.804 | 3.804 | 0.000 | 91 | 88645 | 25.0 | 27.0 | |
| 30 Acrylonitrile | 53 | 4.006 | 4.006 | 0.000 | 98 | 759662 | 250.0 | 222.4 | |
| 33 Hexane | 86 | 4.124 | 4.124 | 0.000 | 97 | 20333 | 25.0 | 29.0 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.539 | 0.000 | 96 | 208473 | 25.0 | 24.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 97 | 246976 | 25.0 | 22.1 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.263 | 0.000 | 83 | 134372 | 25.0 | 25.5 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 56 | 89348 | 25.0 | 23.9 | |
| 39 2-Butanone (MEK) | 43 | 5.393 | 5.393 | 0.000 | 96 | 170219 | 50.0 | 44.0 | |
| 46 Tetrahydrofuran | 42 | 5.595 | 5.595 | 0.000 | 77 | 113368 | 50.0 | 40.7 | |
| 45 Chlorobromomethane | 128 | 5.607 | 5.607 | 0.000 | 82 | 44378 | 25.0 | 29.3 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 91 | 136551 | 25.0 | 23.5 | |
| 49 Cyclohexane | 56 | 5.784 | 5.784 | 0.000 | 92 | 244503 | 25.0 | 23.3 | |
| 48 1,1,1-Trichloroethane | 97 | 5.820 | 5.820 | 0.000 | 93 | 127327 | 25.0 | 25.4 | |
| 51 Carbon tetrachloride | 117 | 5.950 | 5.950 | 0.000 | 93 | 119901 | 25.0 | 27.6 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 83 | 113820 | 25.0 | 24.7 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 94 | 358921 | 25.0 | 25.9 | |
| 52 Isobutyl alcohol | 41 | 6.282 | 6.282 | 0.000 | 95 | 136561 | 625.0 | 527.7 | |
| 54 1,2-Dichloroethane | 62 | 6.342 | 6.342 | 0.000 | 95 | 153152 | 25.0 | 24.6 | |
| 57 n-Heptane | 100 | 6.437 | 6.437 | 0.000 | 96 | 19687 | 25.0 | 23.7 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 90 | 101401 | 25.0 | 28.7 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 94 | 137141 | 25.0 | 25.2 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 90 | 125383 | 25.0 | 25.0 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 85 | 50982 | 25.0 | 28.2 | |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.000 | 50 | 22951 | 500.0 | 479.4 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 92 | 99684 | 25.0 | 21.2 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 89 | 137144 | 50.0 | 45.8 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.824 | 7.824 | 0.000 | 83 | 147510 | 25.0 | 25.3 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.966 | 7.966 | 0.000 | 96 | 338206 | 50.0 | 43.0 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 94 | 371724 | 25.0 | 25.0 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 92 | 122723 | 25.0 | 22.6 | |
| 73 Ethyl methacrylate | 69 | 8.381 | 8.381 | 0.000 | 87 | 99508 | 25.0 | 18.7 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 92 | 76736 | 25.0 | 23.8 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 93 | 88283 | 25.0 | 28.8 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 94 | 135901 | 25.0 | 23.8 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 98 | 237787 | 50.0 | 43.5 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 90 | 78836 | 25.0 | 23.3 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 100 | 85727 | 25.0 | 26.6 | |
| 83 Chlorobenzene | 112 | 9.306 | 9.306 | 0.000 | 94 | 260510 | 25.0 | 26.4 | |
| 85 Ethylbenzene | 106 | 9.378 | 9.378 | 0.000 | 97 | 138836 | 25.0 | 24.9 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.389 | 9.389 | 0.000 | 90 | 98148 | 25.0 | 29.3 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 95 | 164581 | 25.0 | 24.8 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 97 | 155639 | 25.0 | 23.9 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 94 | 271853 | 25.0 | 25.1 | |
| 89 Bromoform | 173 | 10.018 | 10.018 | 0.000 | 95 | 65437 | 25.0 | 24.4 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 95 | 401675 | 25.0 | 24.3 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 88 | 106176 | 25.0 | 26.8 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 95 | 107182 | 25.0 | 24.6 | |
| 97 N-Propylbenzene | 120 | 10.469 | 10.469 | 0.000 | 99 | 123931 | 25.0 | 28.3 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 94 | 37635 | 25.0 | 27.5 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 74 | 56451 | 25.0 | 20.5 | |
| 98 2-Chlorotoluene | 126 | 10.563 | 10.563 | 0.000 | 97 | 98120 | 25.0 | 26.9 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 95 | 346051 | 25.0 | 25.6 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 96 | 106700 | 25.0 | 28.0 | |
| 102 tert-Butylbenzene | 119 | 10.884 | 10.884 | 0.000 | 93 | 281962 | 25.0 | 27.1 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.931 | 10.931 | 0.000 | 97 | 359615 | 25.0 | 25.7 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 93 | 413606 | 25.0 | 25.9 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 349914 | 25.0 | 27.4 | |
| 108 1,3-Dichlorobenzene | 146 | 11.204 | 11.204 | 0.000 | 96 | 200930 | 25.0 | 28.9 | |
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 96 | 206362 | 25.0 | 28.4 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 96 | 266107 | 25.0 | 24.0 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 96 | 200817 | 25.0 | 28.8 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 78 | 25365 | 25.0 | 20.7 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 93 | 117298 | 25.0 | 30.4 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 95 | 42396 | 25.0 | 27.2 | |
| 119 Naphthalene | 128 | 13.160 | 13.160 | 0.000 | 99 | 358539 | 25.0 | 27.2 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 95 | 107473 | 25.0 | 28.5 | |
| S 126 Total BTEX | 1 | | | | 0 | | 125.0 | 124.7 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 92.5 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 48.7 | |

## QC Flag Legend

Processing Flags

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMRPRIMW_00548 | Amount Added: 20.00 | Units: uL | | |
| vmrgas_00494 | Amount Added: 20.00 | Units: uL | | |
| vmarolistdw_00502 | Amount Added: 20.00 | Units: uL | | |
| vm40ml_vials_00024 | Amount Added: 0.00 | Units: | Run Reagent | |
| vm25UX18IS_00007 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vm25UX18SS_00008 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vmDist_H2o_00241 | Amount Added: 0.00 | Units: | Run Reagent | |

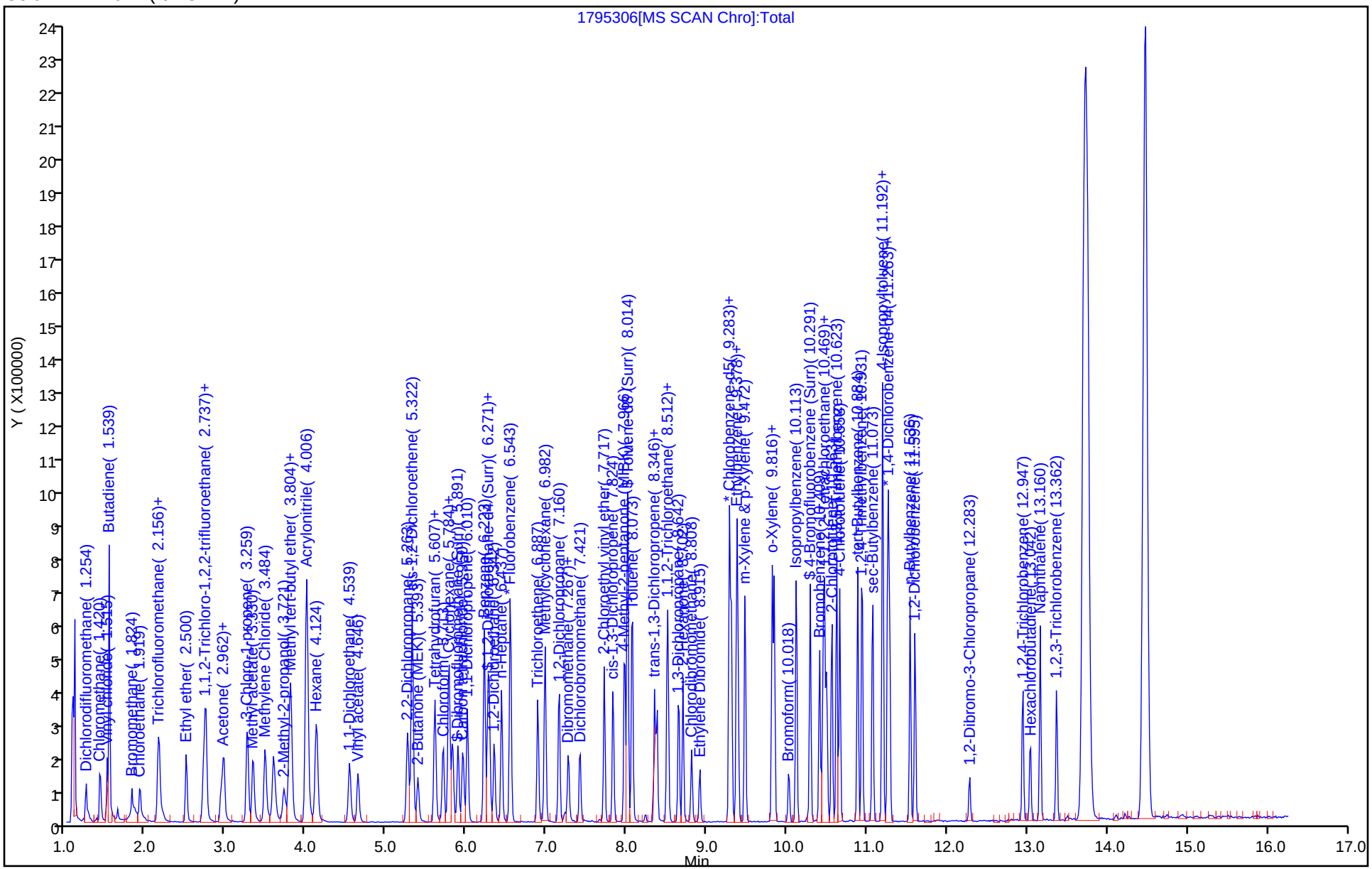
Report Date: 23-Sep-2023 09:17:59 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795306.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 10:00:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | CCVIS | | | Worklist Smp#: | 3 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 2 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\BFB17259.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 09-Aug-2023 13:17:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0132278-001
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 11-Aug-2023 09:13:36 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1678

First Level Reviewer: HE9L Date: 11-Aug-2023 09:13:02

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 8 BFB | 95 | 3.654 | 3.654 | 0.000 | 0 | 540820 | NR | NR | |

## QC Flag Legend

Processing Flags
NR - Missing Quant Standard

## Reagents:

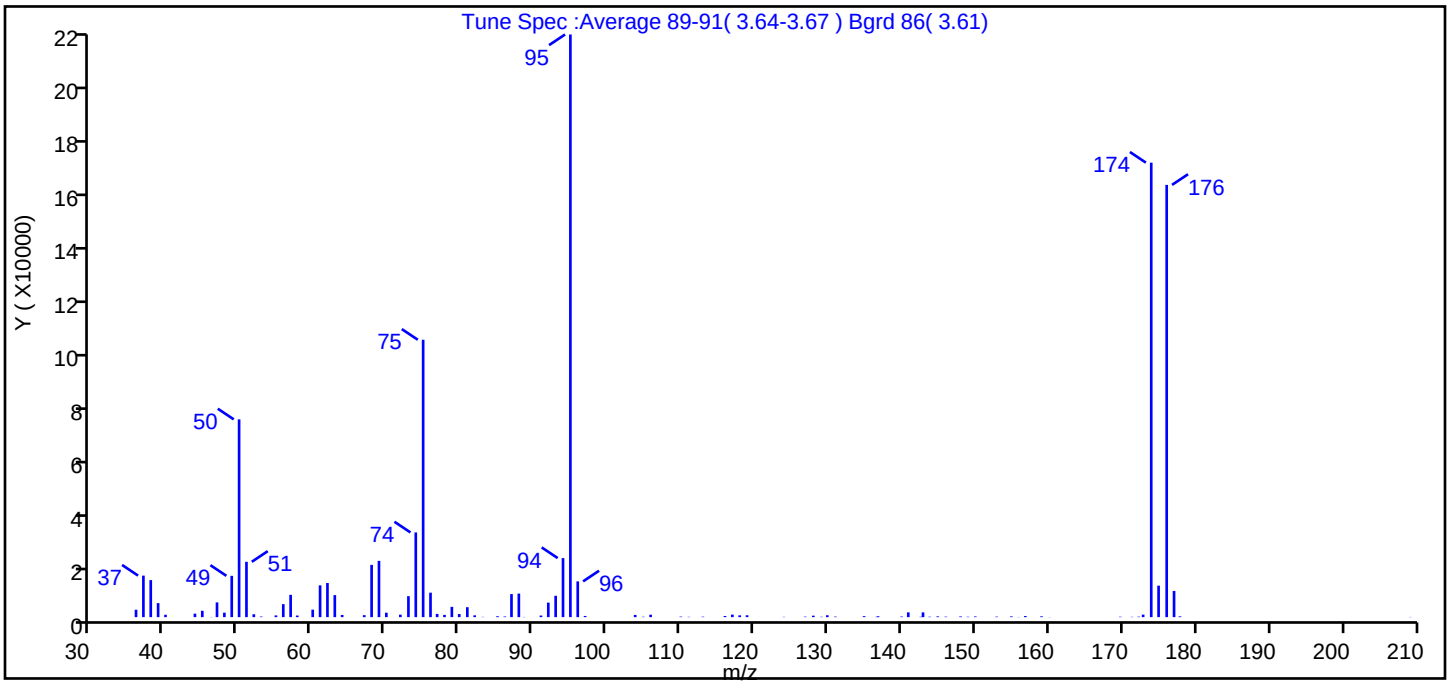
VMBFB_00032 Amount Added: 2.00 Units: uL

MS Tune Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\BFB17259.D
Injection Date: 09-Aug-2023 13:17:30 Instrument ID: A3UX17
Lims ID: BFB
Client ID:
Operator ID: 402279 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Tune Method: BFB Method 8260

$ 8 BFB




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 33.9 |
| 75 | 30 to 60% of m/z 95 | 47.6 |
| 96 | 5 to 9% of m/z 95 | 6.1 |
| 173 | Less than 2% of m/z 174 | 0.4 (0.6) |
| 174 | 50 to 120% of m/z 95 | 78.0 |
| 175 | 5 to 9% of m/z 174 | 5.4 (6.9) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 74.2 (95.1) |
| 177 | 5 to 9% of m/z 176 | 4.5 (6.1) |

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\BFB17259.D\8260_17.rslt\spectra.d
Injection Date: 09-Aug-2023 13:17:30
Spectrum: Tune Spec :Average 89-91( 3.64-3.67 ) Bgrd 86( 3.61)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 97

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 2769 | 68.00 | 19544 | 96.00 | 13375 | 144.00 | 158 |
| 37.00 | 15533 | 69.00 | 21056 | 97.00 | 444 | 145.00 | 279 |
| 38.00 | 13855 | 70.00 | 1660 | 104.00 | 818 | 146.00 | 184 |
| 39.00 | 5251 | 72.00 | 922 | 105.00 | 152 | 148.00 | 259 |
| 40.00 | 887 | 73.00 | 7847 | 106.00 | 913 | 149.00 | 145 |
| 44.00 | 1302 | 74.00 | 31680 | 110.00 | 196 | 150.00 | 259 |
| 45.00 | 2377 | 75.00 | 103744 | 111.00 | 118 | 153.00 | 196 |
| 46.00 | 62 | 76.00 | 9152 | 113.00 | 172 | 155.00 | 274 |
| 47.00 | 5512 | 77.00 | 1205 | 116.00 | 431 | 156.00 | 54 |
| 48.00 | 1681 | 78.00 | 840 | 117.00 | 944 | 157.00 | 407 |
| 49.00 | 15444 | 79.00 | 3838 | 118.00 | 681 | 159.00 | 300 |
| 50.00 | 73968 | 80.00 | 1165 | 119.00 | 701 | 160.00 | 52 |
| 51.00 | 20696 | 81.00 | 3723 | 124.00 | 104 | 170.00 | 162 |
| 52.00 | 1081 | 82.00 | 673 | 127.00 | 184 | 171.00 | 113 |
| 53.00 | 216 | 83.00 | 95 | 128.00 | 546 | 172.00 | 178 |
| 55.00 | 648 | 85.00 | 337 | 129.00 | 137 | 173.00 | 948 |
| 56.00 | 4865 | 86.00 | 243 | 130.00 | 703 | 174.00 | 169984 |
| 57.00 | 8348 | 87.00 | 8616 | 131.00 | 203 | 175.00 | 11781 |
| 58.00 | 605 | 88.00 | 8815 | 135.00 | 362 | 176.00 | 161664 |
| 60.00 | 2804 | 89.00 | 76 | 137.00 | 116 | 177.00 | 9795 |
| 61.00 | 11895 | 91.00 | 602 | 137.00 | 327 | 178.00 | 292 |
| 62.00 | 12763 | 92.00 | 5432 | 140.00 | 219 | 209.00 | 71 |
| 63.00 | 8242 | 93.00 | 7994 | 141.00 | 1782 | | |
| 64.00 | 814 | 94.00 | 22088 | 143.00 | 139 | | |
| 67.00 | 743 | 95.00 | 217920 | 143.00 | 1784 | | |

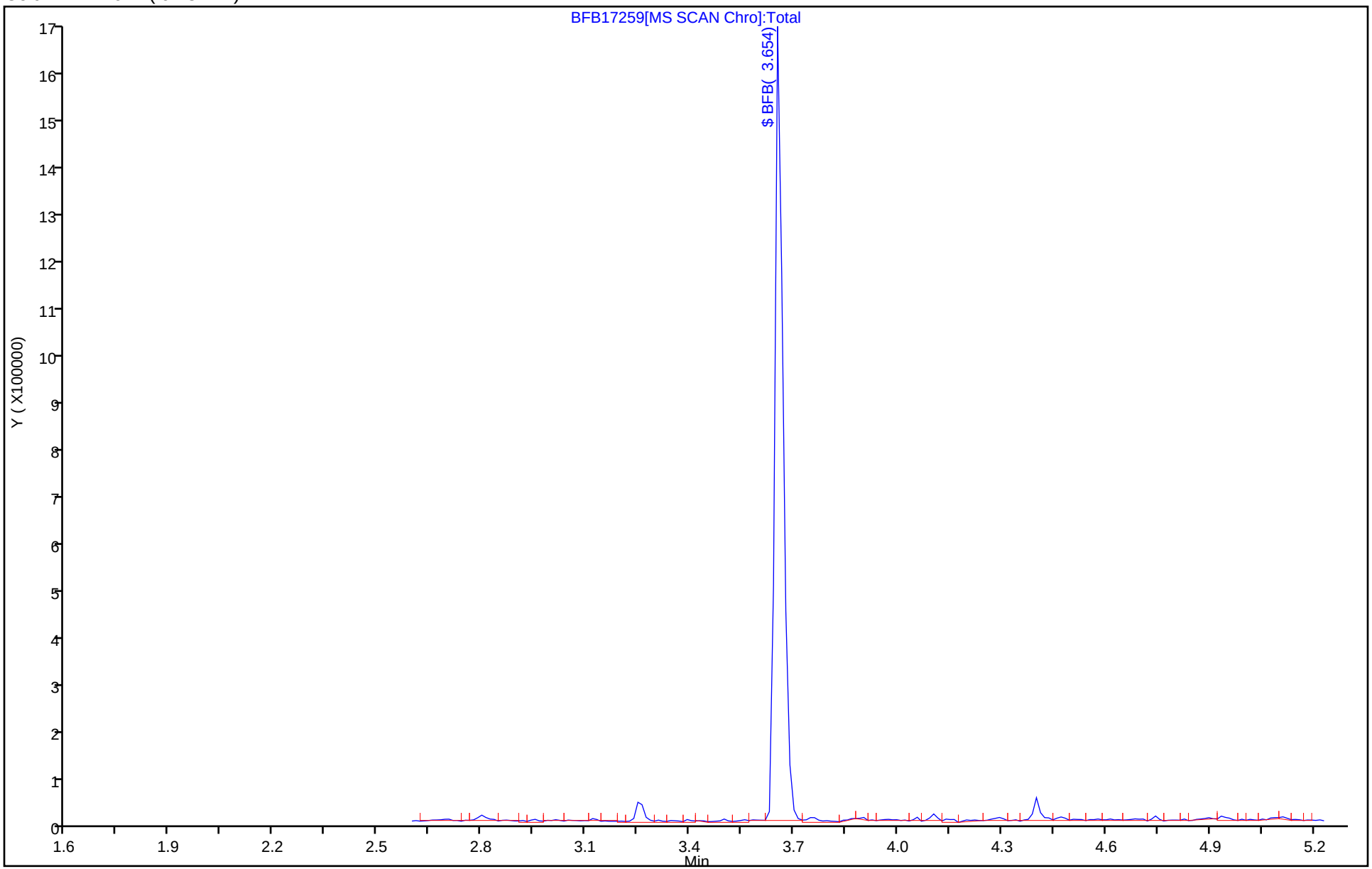
Report Date: 11-Aug-2023 09:13:37 Chrom Revision: 2.3 10-Aug-2023 18:03:18

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\BFB17259.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 09-Aug-2023 13:17:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | BFB | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\17291A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 22-Sep-2023 09:00:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-001
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:56 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| $ 8 BFB | 95 | 3.654 | 3.654 | 0.000 | 0 | 564154 | NR | NR | |

## QC Flag Legend

Processing Flags
NR - Missing Quant Standard

## Reagents:

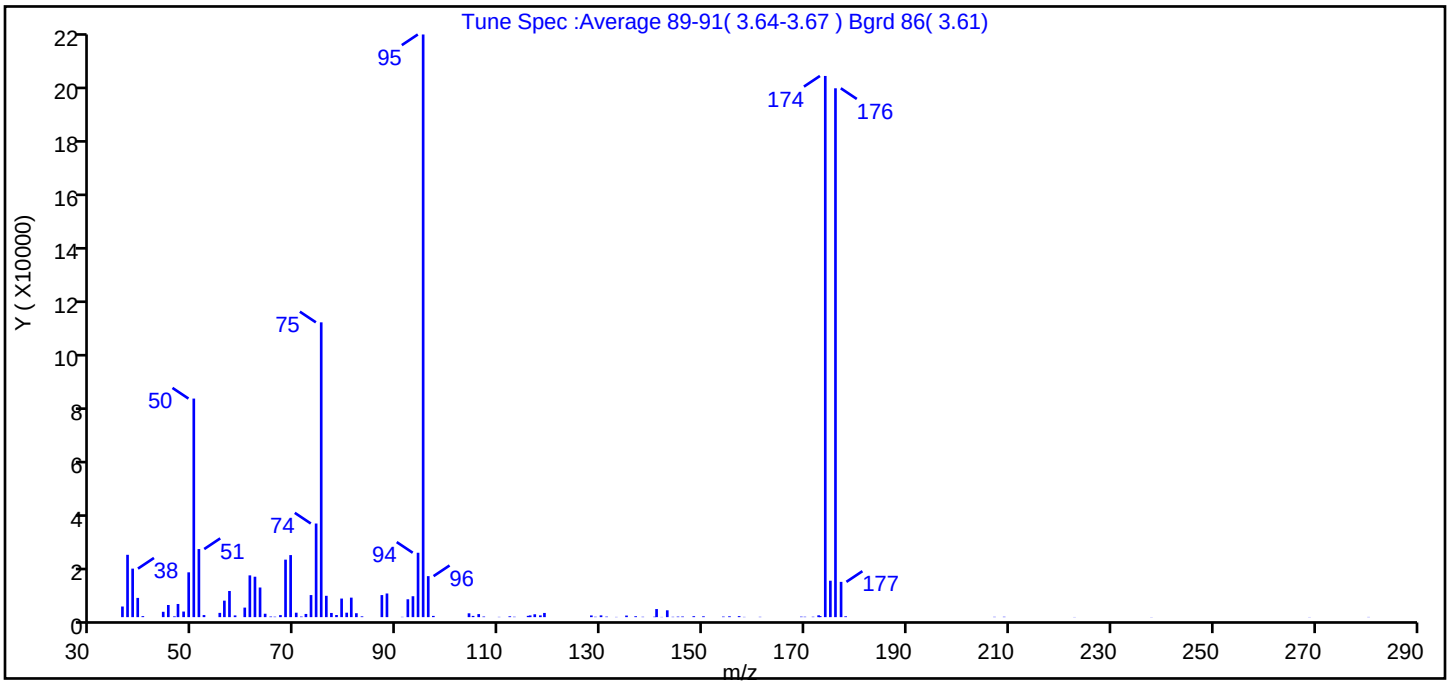
VMBFB_00032 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\17291A.D
Injection Date: 22-Sep-2023 09:00:30 Instrument ID: A3UX17
Lims ID: BFB
Client ID:
Operator ID: 402279 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: 8260_17 Limit Group: MSV 8260C ICAL
Tune Method: BFB Method 8260

$ 8 BFB




| m/z | Ion Abundance Criteria | % Relative Abundance |
|---|---|---|
| 95 | Base peak, 100% relative abundance | 100.0 |
| 50 | 15 to 40% of m/z 95 | 37.5 |
| 75 | 30 to 60% of m/z 95 | 50.6 |
| 96 | 5 to 9% of m/z 95 | 7.0 |
| 173 | Less than 2% of m/z 174 | 0.5 (0.5) |
| 174 | 50 to 120% of m/z 95 | 92.9 |
| 175 | 5 to 9% of m/z 174 | 6.3 (6.7) |
| 176 | Greater than 95% but less than 101% of m/z 174 | 90.8 (97.7) |
| 177 | 5 to 9% of m/z 176 | 6.1 (6.7) |

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\17291A.D\8260_17.rslt\spectra.d
Injection Date: 22-Sep-2023 09:00:30
Spectrum: Tune Spec :Average 89-91( 3.64-3.67 ) Bgrd 86( 3.61)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 101

| m/z | Y | m/z | Y | m/z | Y | m/z | Y |
|---|---|---|---|---|---|---|---|
| 36.00 | 3970 | 68.00 | 21472 | 105.00 | 463 | 148.00 | 355 |
| 37.00 | 23280 | 69.00 | 23176 | 106.00 | 1143 | 150.00 | 306 |
| 38.00 | 18120 | 70.00 | 1656 | 107.00 | 228 | 154.00 | 210 |
| 39.00 | 7185 | 71.00 | 219 | 110.00 | 101 | 155.00 | 311 |
| 40.00 | 374 | 72.00 | 1196 | 112.00 | 318 | 157.00 | 382 |
| 44.00 | 1999 | 73.00 | 8243 | 113.00 | 147 | 158.00 | 93 |
| 45.00 | 4535 | 74.00 | 34968 | 116.00 | 484 | 161.00 | 119 |
| 46.00 | 290 | 75.00 | 110096 | 116.00 | 641 | 169.00 | 184 |
| 47.00 | 4920 | 76.00 | 7969 | 117.00 | 1076 | 170.00 | 152 |
| 48.00 | 2090 | 77.00 | 1565 | 118.00 | 657 | 172.00 | 157 |
| 49.00 | 16736 | 78.00 | 799 | 119.00 | 1568 | 173.00 | 685 |
| 50.00 | 81624 | 79.00 | 6941 | 128.00 | 634 | 173.00 | 399 |
| 51.00 | 25432 | 80.00 | 1661 | 129.00 | 149 | 174.00 | 202112 |
| 52.00 | 773 | 81.00 | 7289 | 130.00 | 664 | 175.00 | 13605 |
| 55.00 | 1594 | 82.00 | 1466 | 131.00 | 194 | 176.00 | 197504 |
| 56.00 | 6161 | 83.00 | 294 | 133.00 | 85 | 177.00 | 13178 |
| 57.00 | 9768 | 87.00 | 8237 | 135.00 | 591 | 178.00 | 310 |
| 58.00 | 642 | 88.00 | 8834 | 137.00 | 344 | 207.00 | 118 |
| 60.00 | 3561 | 91.00 | 108 | 138.00 | 137 | 209.00 | 140 |
| 61.00 | 15600 | 92.00 | 6677 | 140.00 | 170 | 223.00 | 59 |
| 62.00 | 15099 | 93.00 | 7808 | 141.00 | 3021 | 238.00 | 51 |
| 63.00 | 11069 | 94.00 | 24048 | 142.00 | 80 | 269.00 | 58 |
| 64.00 | 1274 | 95.00 | 217600 | 143.00 | 2555 | 280.00 | 77 |
| 65.00 | 227 | 96.00 | 15316 | 144.00 | 131 | | |
| 66.00 | 167 | 97.00 | 463 | 145.00 | 205 | | |
| 67.00 | 758 | 104.00 | 1435 | 146.00 | 236 | | |

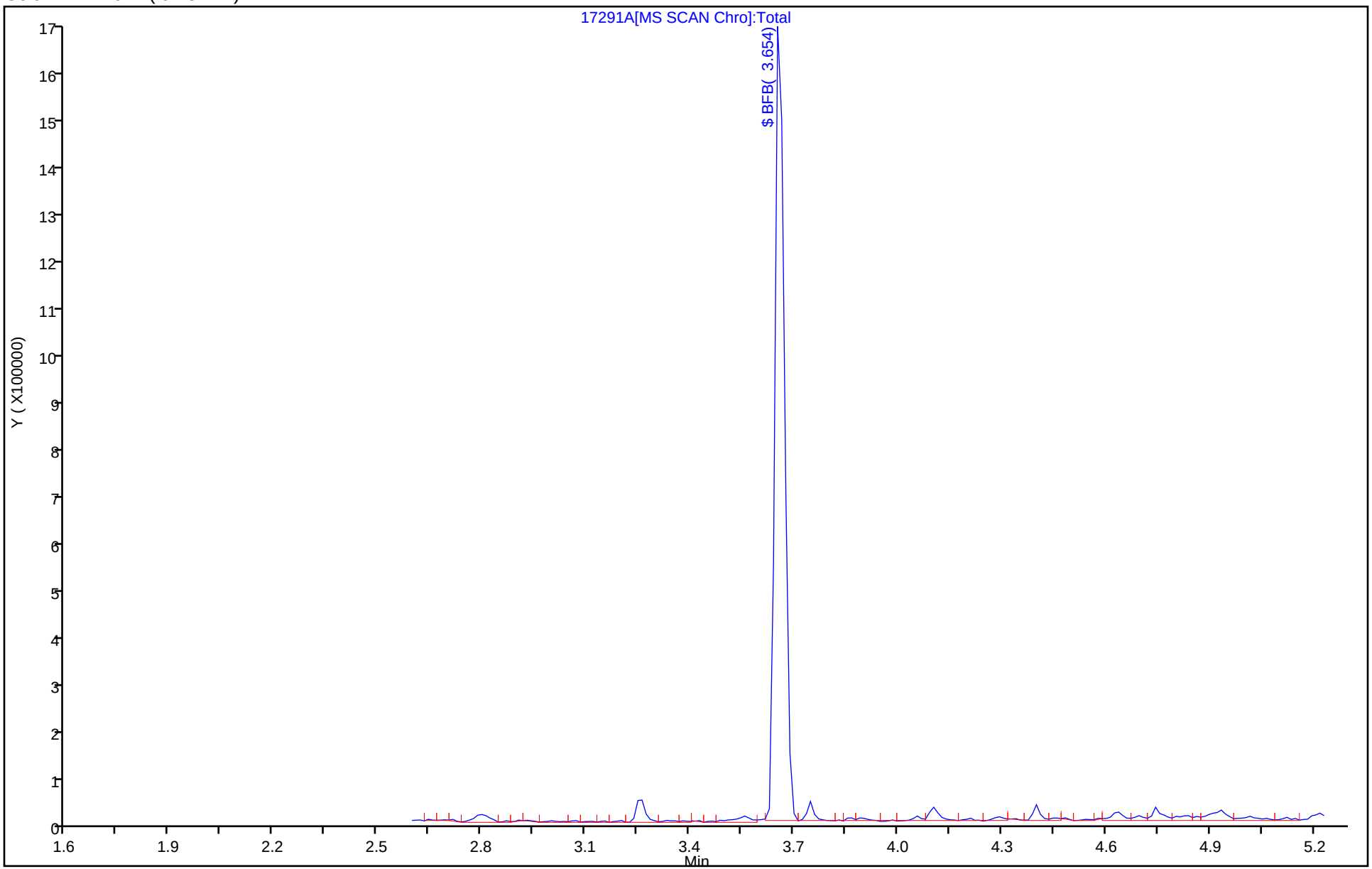
Report Date: 23-Sep-2023 09:17:57 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\17291A.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 09:00:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | BFB | | | Worklist Smp#: | 1 |
| Client ID: | | | | | |
| Injection Vol: | 5.0 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 1 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 240-588192/7

Matrix: Water | Lab File ID: 1795310.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 11:34

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 1.0 | U | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 1.0 | U | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 1.0 | U | 1.0 | 0.49 |
| 71-43-2 | Benzene | 1.0 | U | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 1.0 | U | 1.0 | 0.44 |
| 108-88-3 | Toluene | 1.0 | U | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 1.0 | U | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 1.0 | U | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 1.0 | U | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 2.0 | U | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 95 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 84 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 97 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 95 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795310.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 22-Sep-2023 11:34:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-007
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 22-Sep-2023 11:54:07

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.555 | 6.543 | 0.012 | 98 | 477941 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | -0.001 | 89 | 393636 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 95 | 208891 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.903 | 5.891 | 0.012 | 94 | 123188 | 25.0 | 23.8 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.270 | 6.271 | -0.001 | 92 | 172201 | 25.0 | 23.7 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 492660 | 25.0 | 24.2 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.290 | 10.291 | -0.001 | 95 | 166574 | 25.0 | 21.1 | |
| 9 Dichlorodifluoromethane | 85 | | 1.254 | | | | | ND | |
| 10 Chloromethane | 50 | | 1.420 | | | | | ND | |
| 11 Vinyl chloride | 62 | | 1.515 | | | | | ND | |
| 12 Butadiene | 54 | | 1.539 | | | | | ND | |
| 13 Bromomethane | 94 | | 1.824 | | | | | ND | |
| 14 Chloroethane | 64 | | 1.919 | | | | | ND | |
| 165 isobutylene | 56 | | 2.037 | | | | | ND | |
| 16 Trichlorofluoromethane | 101 | | 2.144 | | | | | ND | |
| 15 Dichlorofluoromethane | 67 | | 2.168 | | | | | ND | |
| 17 Ethyl ether | 59 | | 2.500 | | | | | ND | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | | 2.725 | | | | | ND | |
| 18 Acrolein | 56 | | 2.737 | | | | | ND | |
| 19 1,1-Dichloroethene | 96 | | 2.749 | | | | | ND | |
| 22 Acetone | 43 | | 2.938 | | | | | ND | 7 |
| 23 Iodomethane | 142 | | 2.950 | | | | | ND | U |
| 24 Carbon disulfide | 76 | | 2.974 | | | | | ND | |
| 27 3-Chloro-1-propene | 76 | | 3.270 | | | | | ND | |
| 26 Methyl acetate | 43 | | 3.330 | | | | | ND | |
| 25 Acetonitrile | 41 | | 3.413 | | | | | ND | 7 |
| 28 Methylene Chloride | 84 | | 3.484 | | | | | ND | 7 |
| 29 2-Methyl-2-propanol | 59 | | 3.721 | | | | | ND | |
| 31 Methyl tert-butyl ether | 73 | | 3.792 | | | | | ND | |
| 32 trans-1,2-Dichloroethene | 96 | | 3.804 | | | | | ND | |
| 30 Acrylonitrile | 53 | | 4.006 | | | | | ND | |
| 33 Hexane | 86 | | 4.124 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 35 1,1-Dichloroethane | 63 | | 4.539 | | | | | ND | |
| 36 Isopropyl ether | 87 | | 4.563 | | | | | ND | |
| 37 2-Chloro-1,3-butadiene | 53 | | 4.610 | | | | | ND | |
| 34 Vinyl acetate | 43 | | 4.646 | | | | | ND | 7 |
| 38 Tert-butyl ethyl ether | 59 | | 5.049 | | | | | ND | |
| 42 2,2-Dichloropropane | 77 | | 5.263 | | | | | ND | |
| 41 cis-1,2-Dichloroethene | 96 | | 5.322 | | | | | ND | |
| 39 2-Butanone (MEK) | 43 | | 5.393 | | | | | ND | U |
| 40 Ethyl acetate | 43 | | 5.429 | | | | | ND | |
| 43 Propionitrile | 54 | | 5.559 | | | | | ND | |
| 46 Tetrahydrofuran | 42 | | 5.595 | | | | | ND | |
| 45 Chlorobromomethane | 128 | | 5.607 | | | | | ND | |
| 44 Methacrylonitrile | 41 | | 5.678 | | | | | ND | |
| 47 Chloroform | 83 | | 5.713 | | | | | ND | |
| 49 Cyclohexane | 56 | | 5.784 | | | | | ND | |
| 48 1,1,1-Trichloroethane | 97 | | 5.820 | | | | | ND | |
| 51 Carbon tetrachloride | 117 | | 5.950 | | | | | ND | |
| 50 1,1-Dichloropropene | 75 | | 6.010 | | | | | ND | |
| 53 Benzene | 78 | | 6.223 | | | | | ND | |
| 52 Isobutyl alcohol | 41 | | 6.282 | | | | | ND | |
| 54 1,2-Dichloroethane | 62 | | 6.342 | | | | | ND | 7 |
| 55 Tert-amyl methyl ether | 73 | | 6.342 | | | | | ND | |
| 57 n-Heptane | 100 | | 6.437 | | | | | ND | |
| 162 Methyl acrylate | 55 | | 6.537 | | | | | ND | |
| 59 Trichloroethene | 130 | | 6.887 | | | | | ND | |
| 58 n-Butanol | 56 | | 6.935 | | | | | ND | |
| 61 Methylcyclohexane | 83 | | 6.982 | | | | | ND | |
| 60 Ethyl acrylate | 55 | | 7.053 | | | | | ND | |
| 63 1,2-Dichloropropane | 63 | | 7.160 | | | | | ND | |
| 65 Dibromomethane | 93 | | 7.267 | | | | | ND | |
| 62 Methyl methacrylate | 41 | | 7.267 | | | | | ND | |
| 64 1,4-Dioxane | 88 | | 7.279 | | | | | ND | |
| 66 Dichlorobromomethane | 83 | | 7.421 | | | | | ND | |
| 67 2-Nitropropane | 41 | | 7.706 | | | | | ND | |
| 68 2-Chloroethyl vinyl ether | 63 | | 7.717 | | | | | ND | |
| 69 cis-1,3-Dichloropropene | 75 | | 7.824 | | | | | ND | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | | 7.966 | | | | | ND | U |
| 71 Toluene | 91 | | 8.073 | | | | | ND | |
| 72 trans-1,3-Dichloropropene | 75 | | 8.346 | | | | | ND | |
| 73 Ethyl methacrylate | 69 | | 8.381 | | | | | ND | |
| 80 Tetrahydrothiophene | 60 | | 8.383 | | | | | ND | |
| 74 1,1,2-Trichloroethane | 97 | | 8.500 | | | | | ND | |
| 75 Tetrachloroethene | 164 | | 8.512 | | | | | ND | |
| 76 1,3-Dichloropropane | 76 | | 8.654 | | | | | ND | |
| 77 2-Hexanone | 43 | | 8.702 | | | | | ND | |
| 78 n-Butyl acetate | 56 | | 8.785 | | | | | ND | |
| 79 Chlorodibromomethane | 129 | | 8.808 | | | | | ND | |
| 81 Ethylene Dibromide | 107 | | 8.915 | | | | | ND | |
| 82 1-Chlorohexane | 91 | | 9.271 | | | | | ND | |
| 83 Chlorobenzene | 112 | | 9.306 | | | | | ND | |
| 85 Ethylbenzene | 106 | | 9.378 | | | | | ND | |
| 84 1,1,1,2-Tetrachloroethane | 131 | | 9.389 | | | | | ND | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 86 m-Xylene & p-Xylene | 106 | | 9.472 | | | | | ND | |
| 87 o-Xylene | 106 | | 9.816 | | | | | ND | |
| 88 Styrene | 104 | | 9.840 | | | | | ND | |
| 92 1,4-Dichlorobutane | 55 | | 9.967 | | | | | ND | |
| 89 Bromoform | 173 | | 10.018 | | | | | ND | |
| 90 Isopropylbenzene | 105 | | 10.113 | | | | | ND | |
| 91 Cyclohexanone | 55 | | 10.267 | | | | | ND | 7 |
| 95 Bromobenzene | 156 | | 10.409 | | | | | ND | |
| 93 1,1,2,2-Tetrachloroethane | 83 | | 10.445 | | | | | ND | |
| 97 N-Propylbenzene | 120 | | 10.469 | | | | | ND | |
| 96 1,2,3-Trichloropropane | 110 | | 10.492 | | | | | ND | |
| 94 trans-1,4-Dichloro-2-butene | 53 | | 10.504 | | | | | ND | |
| 98 2-Chlorotoluene | 126 | | 10.563 | | | | | ND | |
| 100 1,3,5-Trimethylbenzene | 105 | | 10.623 | | | | | ND | |
| 101 4-Chlorotoluene | 126 | | 10.658 | | | | | ND | |
| 163 n-Butyl acrylate | 73 | | 10.770 | | | | | ND | |
| 102 tert-Butylbenzene | 119 | | 10.884 | | | | | ND | |
| 104 1,2,4-Trimethylbenzene | 105 | | 10.931 | | | | | ND | |
| 106 sec-Butylbenzene | 105 | | 11.073 | | | | | ND | |
| 107 4-Isopropyltoluene | 119 | | 11.192 | | | | | ND | |
| 108 1,3-Dichlorobenzene | 146 | | 11.204 | | | | | ND | |
| 109 1,4-Dichlorobenzene | 146 | | 11.287 | | | | | ND | |
| 110 1,2,3-Trimethylbenzene | 105 | | 11.299 | | | | | ND | |
| 111 Benzyl chloride | 91 | | 11.405 | | | | | ND | |
| 112 n-Butylbenzene | 91 | | 11.536 | | | | | ND | |
| 113 1,2-Dichlorobenzene | 146 | | 11.595 | | | | | ND | |
| 114 1,3-Diethylbenzene TIC | 1 | | 11.650 | | | | | ND | |
| 105 Pentachloroethane | 167 | | 11.968 | | | | | ND | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | | 12.283 | | | | | ND | |
| 116 1,3,5-Trichlorobenzene | 180 | | 12.402 | | | | | ND | |
| 117 1,2,4-Trichlorobenzene | 180 | | 12.947 | | | | | ND | |
| 118 Hexachlorobutadiene | 225 | | 13.042 | | | | | ND | |
| 119 Naphthalene | 128 | | 13.160 | | | | | ND | |
| 120 1,2,3-Trichlorobenzene | 180 | | 13.362 | | | | | ND | |
| 121 2-Methylnaphthalene | 142 | | 14.109 | | | | | ND | |
| 164 2-Ethylhexyl acrylate | 70 | | 14.115 | | | | | ND | |
| S 126 Total BTEX | 1 | | 0.450 | | | | | ND | |
| S 127 Trihalomethanes, Total | 1 | | 0.450 | | | | | ND | 7 |
| S 128 1,2-Dichloroethene, Total | 96 | | 1.590 | | | | | ND | 7 |
| S 129 1,3-Dichloropropene, Total | 75 | | 7.210 | | | | | ND | 7 |
| S 130 Xylenes, Total | 106 | | 16.980 | | | | | ND | 7 |

## QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

## Reagents:

| | | | | |
|---|---|---|---|---|
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

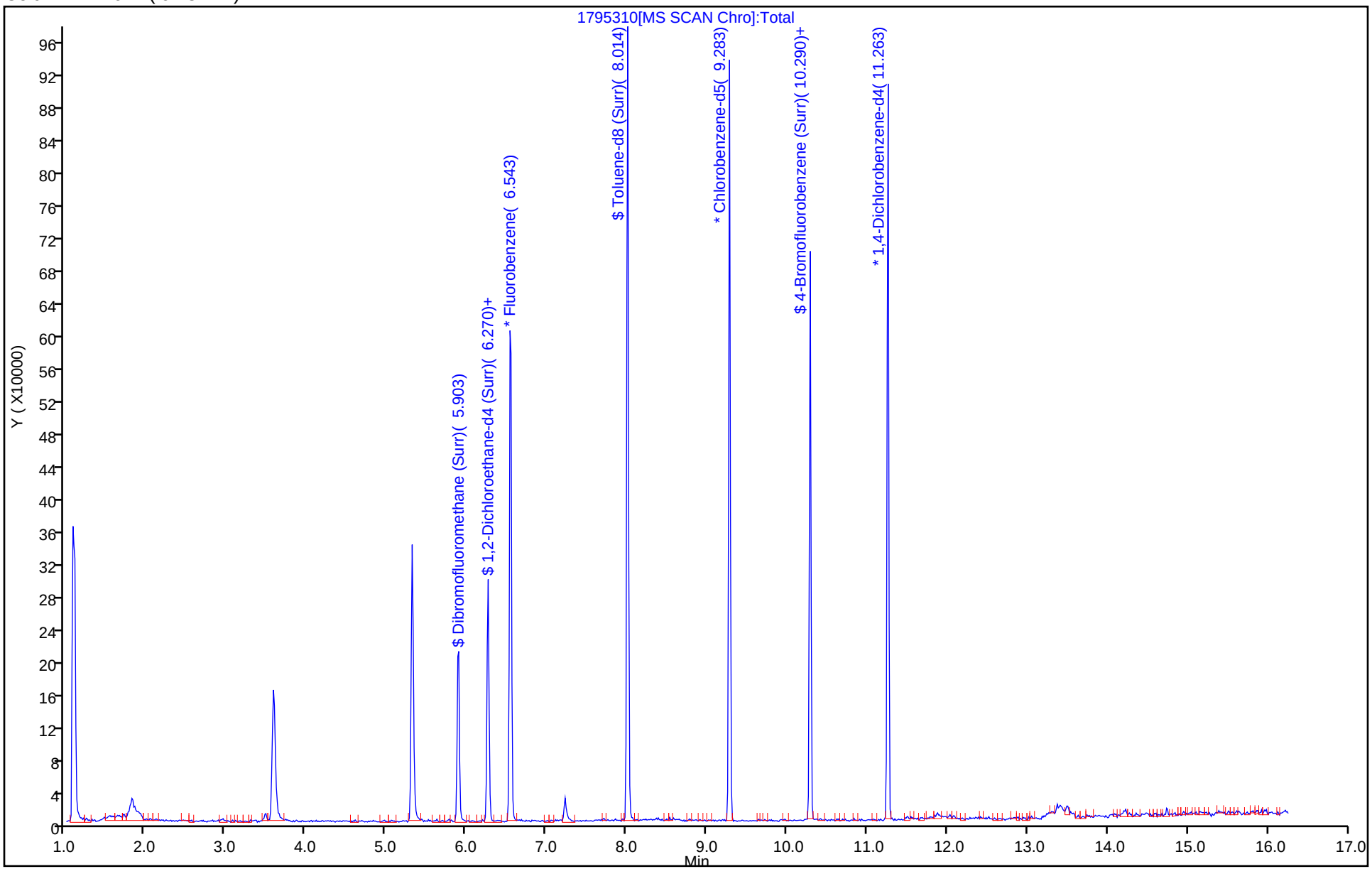
Report Date: 23-Sep-2023 09:18:13 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795310.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 11:34:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | MB | | | Worklist Smp#: | 7 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 6 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795310.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 22-Sep-2023 11:34:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-007
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

First Level Reviewer: HE9L Date: 22-Sep-2023 11:54:07

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 23.8 | 95.14 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 23.7 | 94.82 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 24.2 | 96.85 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 21.1 | 84.25 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 240-588192/4

Matrix: Water | Lab File ID: 1795307.D

Analysis Method: 8260D | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 10:23

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 25.2 | | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 26.1 | | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 27.4 | | 1.0 | 0.49 |
| 71-43-2 | Benzene | 27.2 | | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 26.1 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 26.7 | | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 27.6 | | 1.0 | 0.44 |
| 108-88-3 | Toluene | 25.5 | | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 26.6 | | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 30.5 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 11.7 | | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 53.6 | | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 93 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 84 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 94 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 102 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795307.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 22-Sep-2023 10:23:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-004
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 97 | 484488 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 89 | 402587 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 92 | 224204 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 95 | 134507 | 25.0 | 25.6 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 93 | 171345 | 25.0 | 23.3 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 487180 | 25.0 | 23.4 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 93 | 169394 | 25.0 | 20.9 | |
| 9 Dichlorodifluoromethane | 85 | 1.255 | 1.254 | 0.001 | 97 | 35889 | 12.5 | 7.29 | |
| 10 Chloromethane | 50 | 1.421 | 1.420 | 0.001 | 98 | 78647 | 12.5 | 8.85 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 98 | 70026 | 12.5 | 11.7 | |
| 12 Butadiene | 54 | 1.539 | 1.539 | 0.000 | 96 | 96669 | 12.5 | 12.0 | |
| 13 Bromomethane | 94 | 1.824 | 1.824 | 0.000 | 94 | 18134 | 12.5 | 20.5 | |
| 14 Chloroethane | 64 | 1.931 | 1.919 | 0.011 | 96 | 40736 | 12.5 | 14.5 | |
| 16 Trichlorofluoromethane | 101 | 2.156 | 2.144 | 0.012 | 96 | 62009 | 12.5 | 10.8 | |
| 15 Dichlorofluoromethane | 67 | 2.168 | 2.168 | 0.000 | 96 | 94796 | 12.5 | 12.6 | |
| 17 Ethyl ether | 59 | 2.500 | 2.500 | 0.000 | 96 | 113506 | 25.0 | 25.8 | |
| 21 1,1,2-Trichloro-1,2,2-trifluoroe | 151 | 2.725 | 2.725 | 0.000 | 89 | 68560 | 25.0 | 30.8 | |
| 18 Acrolein | 56 | 2.737 | 2.737 | 0.000 | 97 | 158246 | 125.0 | 466.6 | E |
| 19 1,1-Dichloroethene | 96 | 2.749 | 2.749 | 0.000 | 89 | 76407 | 25.0 | 27.4 | |
| 22 Acetone | 43 | 2.938 | 2.938 | 0.000 | 97 | 127746 | 50.0 | 51.3 | |
| 23 Iodomethane | 142 | 2.950 | 2.950 | 0.000 | 57 | 45370 | 25.0 | 18.5 | |
| 24 Carbon disulfide | 76 | 2.974 | 2.974 | 0.000 | 97 | 238979 | 25.0 | 29.4 | |
| 27 3-Chloro-1-propene | 76 | 3.259 | 3.270 | -0.011 | 86 | 50233 | 25.0 | 25.9 | |
| 26 Methyl acetate | 43 | 3.342 | 3.330 | 0.012 | 100 | 290101 | 50.0 | 41.6 | |
| 28 Methylene Chloride | 84 | 3.484 | 3.484 | 0.000 | 88 | 93163 | 25.0 | 28.9 | |
| 29 2-Methyl-2-propanol | 59 | 3.721 | 3.721 | 0.000 | 100 | 169190 | 250.0 | 216.7 | |
| 31 Methyl tert-butyl ether | 73 | 3.792 | 3.792 | 0.000 | 93 | 251068 | 25.0 | 25.6 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.804 | 3.804 | 0.000 | 87 | 88081 | 25.0 | 26.6 | |
| 30 Acrylonitrile | 53 | 4.006 | 4.006 | 0.000 | 97 | 817456 | 250.0 | 237.5 | |
| 33 Hexane | 86 | 4.124 | 4.124 | 0.000 | 96 | 18096 | 25.0 | 25.6 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.539 | 0.000 | 95 | 226275 | 25.0 | 26.1 | |
| 34 Vinyl acetate | 43 | 4.646 | 4.646 | 0.000 | 96 | 360496 | 25.0 | 32.1 | |
| 42 2,2-Dichloropropane | 77 | 5.263 | 5.263 | 0.000 | 82 | 133666 | 25.0 | 25.1 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 55 | 98507 | 25.0 | 26.1 | |
| 39 2-Butanone (MEK) | 43 | 5.393 | 5.393 | 0.000 | 96 | 188966 | 50.0 | 48.6 | |
| 46 Tetrahydrofuran | 42 | 5.607 | 5.595 | 0.012 | 78 | 120419 | 50.0 | 42.9 | |
| 45 Chlorobromomethane | 128 | 5.607 | 5.607 | 0.000 | 85 | 46005 | 25.0 | 30.1 | |
| 47 Chloroform | 83 | 5.713 | 5.713 | 0.000 | 92 | 149826 | 25.0 | 25.6 | |
| 49 Cyclohexane | 56 | 5.785 | 5.784 | 0.001 | 90 | 248857 | 25.0 | 23.6 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.820 | 0.012 | 90 | 127093 | 25.0 | 25.2 | |
| 51 Carbon tetrachloride | 117 | 5.951 | 5.950 | 0.001 | 92 | 118272 | 25.0 | 27.0 | |
| 50 1,1-Dichloropropene | 75 | 6.010 | 6.010 | 0.000 | 83 | 115623 | 25.0 | 24.9 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 96 | 379382 | 25.0 | 27.2 | |
| 52 Isobutyl alcohol | 41 | 6.283 | 6.282 | 0.001 | 93 | 149838 | 625.0 | 571.1 | |
| 54 1,2-Dichloroethane | 62 | 6.342 | 6.342 | 0.000 | 95 | 168187 | 25.0 | 26.8 | |
| 57 n-Heptane | 100 | 6.449 | 6.437 | 0.012 | 96 | 18955 | 25.0 | 22.6 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 90 | 108658 | 25.0 | 30.5 | |
| 61 Methylcyclohexane | 83 | 6.982 | 6.982 | 0.000 | 94 | 130978 | 25.0 | 23.9 | |
| 63 1,2-Dichloropropane | 63 | 7.160 | 7.160 | 0.000 | 88 | 122847 | 25.0 | 24.3 | |
| 65 Dibromomethane | 93 | 7.267 | 7.267 | 0.000 | 94 | 56266 | 25.0 | 30.9 | |
| 64 1,4-Dioxane | 88 | 7.279 | 7.279 | 0.000 | 48 | 25806 | 500.0 | 535.0 | |
| 66 Dichlorobromomethane | 83 | 7.421 | 7.421 | 0.000 | 93 | 106260 | 25.0 | 22.4 | |
| 68 2-Chloroethyl vinyl ether | 63 | 7.717 | 7.717 | 0.000 | 86 | 62366 | 25.0 | 20.7 | |
| 69 cis-1,3-Dichloropropene | 75 | 7.836 | 7.824 | 0.012 | 83 | 138402 | 25.0 | 23.5 | |
| 70 4-Methyl-2-pentanone (MIBK) | 43 | 7.978 | 7.966 | 0.012 | 97 | 371231 | 50.0 | 46.8 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 95 | 384189 | 25.0 | 25.5 | |
| 72 trans-1,3-Dichloropropene | 75 | 8.346 | 8.346 | 0.000 | 91 | 134706 | 25.0 | 24.4 | |
| 73 Ethyl methacrylate | 69 | 8.382 | 8.381 | 0.001 | 91 | 104125 | 25.0 | 19.3 | |
| 74 1,1,2-Trichloroethane | 97 | 8.500 | 8.500 | 0.000 | 92 | 83433 | 25.0 | 25.5 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 93 | 85552 | 25.0 | 27.6 | |
| 76 1,3-Dichloropropane | 76 | 8.654 | 8.654 | 0.000 | 89 | 134520 | 25.0 | 23.2 | |
| 77 2-Hexanone | 43 | 8.702 | 8.702 | 0.000 | 99 | 259673 | 50.0 | 46.8 | |
| 79 Chlorodibromomethane | 129 | 8.808 | 8.808 | 0.000 | 91 | 86500 | 25.0 | 25.3 | |
| 81 Ethylene Dibromide | 107 | 8.915 | 8.915 | 0.000 | 100 | 87034 | 25.0 | 26.6 | |
| 83 Chlorobenzene | 112 | 9.307 | 9.306 | 0.000 | 93 | 280117 | 25.0 | 28.0 | |
| 85 Ethylbenzene | 106 | 9.378 | 9.378 | 0.000 | 96 | 150898 | 25.0 | 26.7 | |
| 84 1,1,1,2-Tetrachloroethane | 131 | 9.390 | 9.389 | 0.001 | 93 | 87452 | 25.0 | 25.7 | |
| 86 m-Xylene & p-Xylene | 106 | 9.473 | 9.472 | 0.001 | 94 | 183100 | 25.0 | 27.2 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 96 | 173849 | 25.0 | 26.4 | |
| 88 Styrene | 104 | 9.840 | 9.840 | 0.000 | 94 | 277857 | 25.0 | 25.3 | |
| 89 Bromoform | 173 | 10.030 | 10.018 | 0.012 | 97 | 69663 | 25.0 | 25.7 | |
| 90 Isopropylbenzene | 105 | 10.113 | 10.113 | 0.000 | 96 | 429166 | 25.0 | 25.6 | |
| 95 Bromobenzene | 156 | 10.409 | 10.409 | 0.000 | 86 | 110085 | 25.0 | 25.3 | |
| 93 1,1,2,2-Tetrachloroethane | 83 | 10.445 | 10.445 | 0.000 | 93 | 114415 | 25.0 | 24.0 | |
| 97 N-Propylbenzene | 120 | 10.469 | 10.469 | 0.000 | 100 | 122259 | 25.0 | 25.5 | |
| 96 1,2,3-Trichloropropane | 110 | 10.492 | 10.492 | 0.000 | 92 | 43865 | 25.0 | 29.2 | |
| 94 trans-1,4-Dichloro-2-butene | 53 | 10.504 | 10.504 | 0.000 | 87 | 61054 | 25.0 | 20.2 | |
| 98 2-Chlorotoluene | 126 | 10.564 | 10.563 | 0.001 | 96 | 110972 | 25.0 | 27.7 | |
| 100 1,3,5-Trimethylbenzene | 105 | 10.623 | 10.623 | 0.000 | 94 | 356921 | 25.0 | 24.1 | |
| 101 4-Chlorotoluene | 126 | 10.658 | 10.658 | 0.000 | 97 | 109493 | 25.0 | 26.2 | |
| 102 tert-Butylbenzene | 119 | 10.884 | 10.884 | 0.000 | 93 | 293389 | 25.0 | 25.7 | |
| 104 1,2,4-Trimethylbenzene | 105 | 10.943 | 10.931 | 0.012 | 97 | 361282 | 25.0 | 23.6 | |
| 106 sec-Butylbenzene | 105 | 11.073 | 11.073 | 0.000 | 94 | 416275 | 25.0 | 23.8 | |
| 107 4-Isopropyltoluene | 119 | 11.192 | 11.192 | 0.000 | 97 | 343717 | 25.0 | 24.5 | |
| 108 1,3-Dichlorobenzene | 146 | 11.192 | 11.204 | -0.012 | 96 | 208340 | 25.0 | 27.3 | |

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| 109 1,4-Dichlorobenzene | 146 | 11.287 | 11.287 | 0.000 | 98 | 226261 | 25.0 | 28.4 | |
| 112 n-Butylbenzene | 91 | 11.536 | 11.536 | 0.000 | 97 | 270268 | 25.0 | 22.2 | |
| 113 1,2-Dichlorobenzene | 146 | 11.595 | 11.595 | 0.000 | 97 | 197928 | 25.0 | 25.9 | |
| 115 1,2-Dibromo-3-Chloropropane | 157 | 12.283 | 12.283 | 0.000 | 77 | 27374 | 25.0 | 20.4 | |
| 117 1,2,4-Trichlorobenzene | 180 | 12.947 | 12.947 | 0.000 | 93 | 119092 | 25.0 | 28.1 | |
| 118 Hexachlorobutadiene | 225 | 13.042 | 13.042 | 0.000 | 93 | 47698 | 25.0 | 27.9 | |
| 119 Naphthalene | 128 | 13.161 | 13.160 | 0.001 | 99 | 368234 | 25.0 | 25.5 | |
| 120 1,2,3-Trichlorobenzene | 180 | 13.362 | 13.362 | 0.000 | 97 | 107777 | 25.0 | 26.1 | |
| S 126 Total BTEX | 1 | | | | 0 | | 125.0 | 133.0 | |
| S 127 Trihalomethanes, Total | 1 | | | | 0 | | 100.0 | 99.0 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 53.6 | |

## QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

## Reagents:

| | | | | |
|---|---|---|---|---|
| vmfasaw_00482 | Amount Added: 20.00 | Units: uL | | |
| VMFASGW_00526 | Amount Added: 10.00 | Units: uL | | |
| VMFASPW_00510 | Amount Added: 20.00 | Units: uL | | |
| vm40ml_vials_00024 | Amount Added: 0.00 | Units: | Run Reagent | |
| vm25UX18IS_00007 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vm25UX18SS_00008 | Amount Added: 5.00 | Units: uL | Run Reagent | |
| vmDist_H2o_00241 | Amount Added: 0.00 | Units: | Run Reagent | |

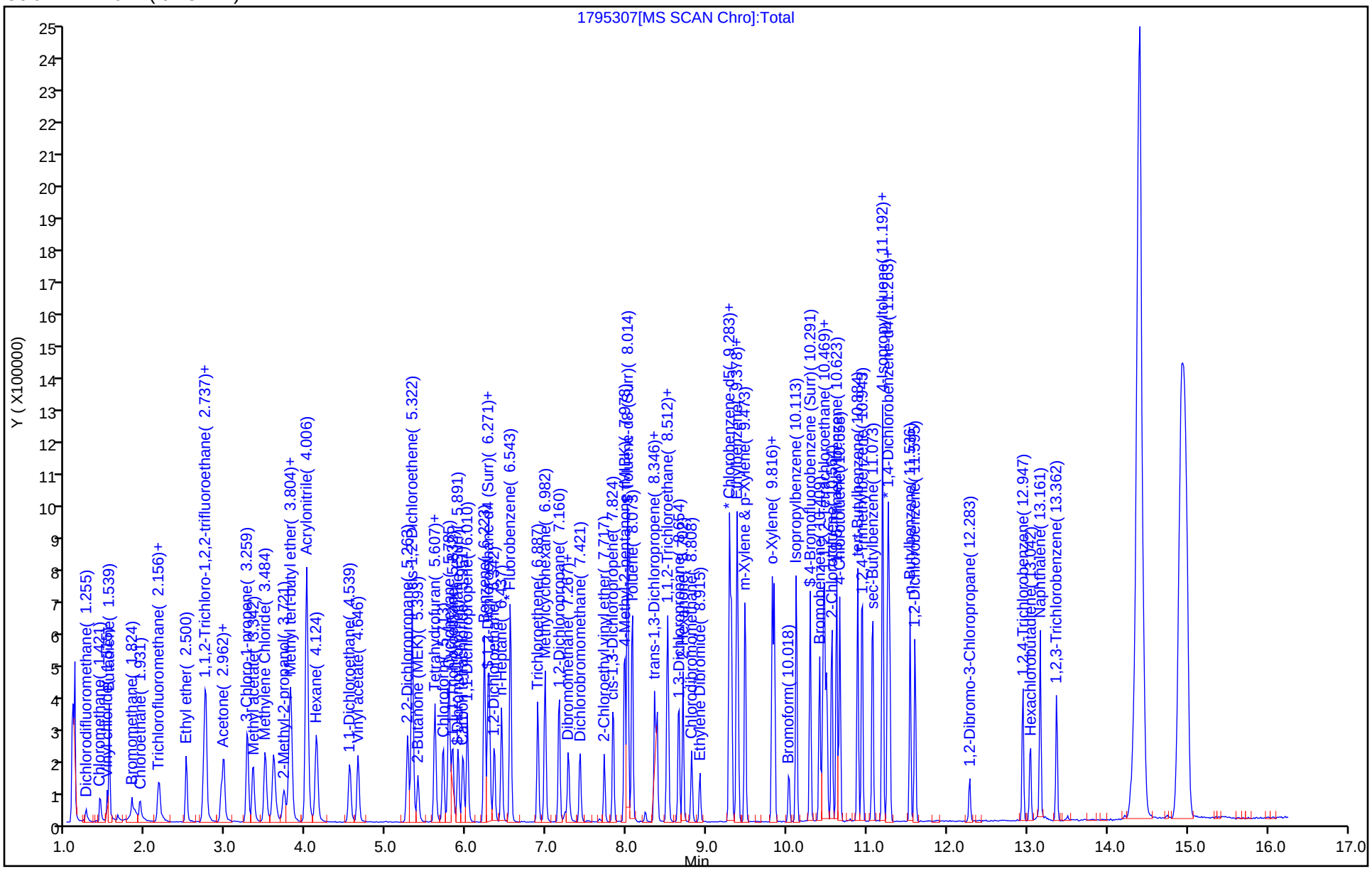
Report Date: 23-Sep-2023 09:18:01 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795307.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 10:23:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | LCS | | | Worklist Smp#: | 4 |
| Client ID: | | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 3 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795307.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 22-Sep-2023 10:23:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-004
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 25.6 | 102.48 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 23.3 | 93.08 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 23.4 | 93.64 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 20.9 | 83.77 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: W-2-S/091223/ MS | Lab Sample ID: 240-191867-1 MS

Matrix: Water | Lab File ID: 1795323.D

Analysis Method: 8260D | Date Collected: 09/12/2023 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 16:38

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 24.3 | | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 22.8 | | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 26.3 | | 1.0 | 0.49 |
| 71-43-2 | Benzene | 25.1 | | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 25.5 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 26.0 | | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 41.5 | | 1.0 | 0.44 |
| 108-88-3 | Toluene | 24.1 | | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 24.6 | | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 35.0 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 11.5 | | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 48.9 | | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 90 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 95 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 101 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795323.D
Lims ID: 240-191867-G-1 MS
Client ID: W-2-S/091223/
Sample Type: MS
Inject. Date: 22-Sep-2023 16:38:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-020
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 97 | 479471 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 90 | 393314 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 93 | 208623 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 93 | 131357 | 25.0 | 25.3 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.270 | 6.271 | -0.001 | 93 | 163452 | 25.0 | 22.4 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 95 | 483622 | 25.0 | 23.8 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | -0.001 | 94 | 173514 | 25.0 | 22.0 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 97 | 68162 | 12.5 | 11.5 | |
| 19 1,1-Dichloroethene | 96 | 2.748 | 2.749 | -0.001 | 91 | 72585 | 25.0 | 26.3 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.804 | 0.012 | 92 | 80354 | 25.0 | 24.6 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.539 | 0.000 | 95 | 195801 | 25.0 | 22.8 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 54 | 95196 | 25.0 | 25.5 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.820 | 0.012 | 94 | 121659 | 25.0 | 24.3 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 95 | 346645 | 25.0 | 25.1 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 90 | 123403 | 25.0 | 35.0 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 95 | 354698 | 25.0 | 24.1 | |
| 75 Tetrachloroethene | 164 | 8.524 | 8.512 | 0.012 | 93 | 125928 | 25.0 | 41.5 | |
| 85 Ethylbenzene | 106 | 9.377 | 9.378 | -0.001 | 96 | 143533 | 25.0 | 26.0 | |
| 86 m-Xylene & p-Xylene | 106 | 9.484 | 9.472 | 0.012 | 95 | 160353 | 25.0 | 24.4 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 95 | 157597 | 25.0 | 24.5 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 48.9 | |

## Reagents:

| | | | | |
|---|---|---|---|---|
| vmfasaw_00482 | Amount Added: | 20.00 | Units: uL | |
| VMFASPW_00510 | Amount Added: | 20.00 | Units: uL | |
| VMFASA9W_00423 | Amount Added: | 20.00 | Units: uL | |
| VMFASGW_00526 | Amount Added: | 10.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

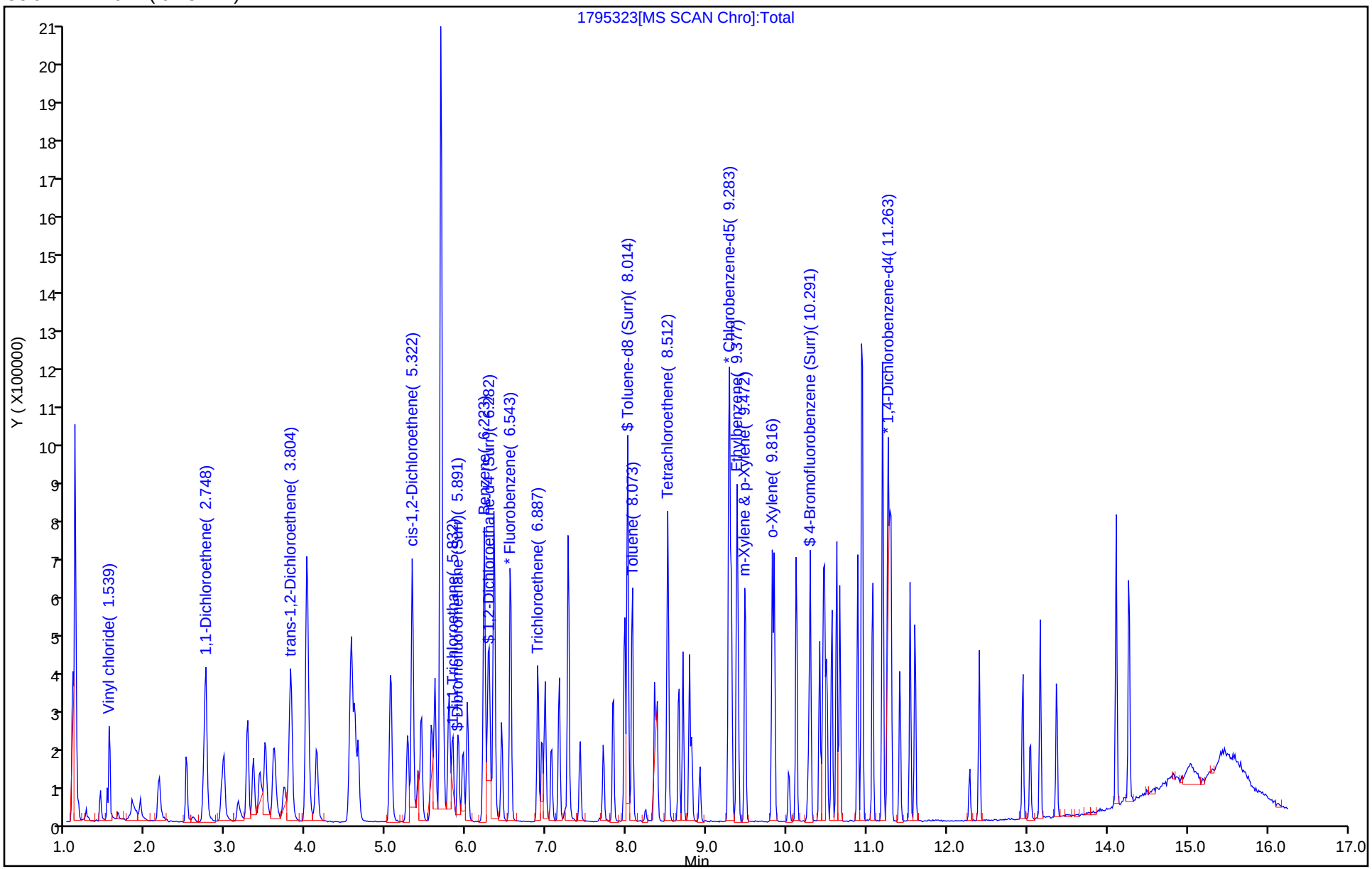
Report Date: 23-Sep-2023 09:18:30 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795323.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 16:38:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-G-1 MS | | | Worklist Smp#: | 20 |
| Client ID: | W-2-S/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 19 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795323.D
Lims ID: 240-191867-G-1 MS
Client ID: W-2-S/091223/
Sample Type: MS
Inject. Date: 22-Sep-2023 16:38:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-020
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 25.3 | 101.12 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 22.4 | 89.72 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 23.8 | 95.15 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 22.0 | 87.83 |

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Cleveland | Job No.: 240-191867-1

SDG No.:

Client Sample ID: W-2-S/091223/ MSD | Lab Sample ID: 240-191867-1 MSD

Matrix: Water | Lab File ID: 1795324.D

Analysis Method: 8260D | Date Collected: 09/12/2023 11:10

Sample wt/vol: 5(mL) | Date Analyzed: 09/22/2023 17:01

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.18(mm)

Purge Volume: 5.0(mL) | Heated Purge: (Y/N) N pH:

% Moisture: % Solids: | Level: (low/med) Low

Analysis Batch No.: 588192 | Units: ug/L

| CAS NO. | COMPOUND NAME | RESULT | Q | RL | MDL |
|---|---|---|---|---|---|
| 71-55-6 | 1,1,1-Trichloroethane | 23.1 | | 1.0 | 0.48 |
| 75-34-3 | 1,1-Dichloroethane | 22.7 | | 1.0 | 0.47 |
| 75-35-4 | 1,1-Dichloroethene | 24.3 | | 1.0 | 0.49 |
| 71-43-2 | Benzene | 23.9 | | 1.0 | 0.42 |
| 156-59-2 | cis-1,2-Dichloroethene | 23.5 | | 1.0 | 0.46 |
| 100-41-4 | Ethylbenzene | 26.0 | | 1.0 | 0.42 |
| 127-18-4 | Tetrachloroethene | 38.9 | | 1.0 | 0.44 |
| 108-88-3 | Toluene | 23.2 | | 1.0 | 0.44 |
| 156-60-5 | trans-1,2-Dichloroethene | 23.3 | | 1.0 | 0.51 |
| 79-01-6 | Trichloroethene | 31.7 | | 1.0 | 0.44 |
| 75-01-4 | Vinyl chloride | 11.1 | | 1.0 | 0.45 |
| 1330-20-7 | Xylenes, Total | 48.7 | | 2.0 | 0.42 |

| CAS NO. | SURROGATE | %REC | Q | LIMITS |
|---|---|---|---|---|
| 17060-07-0 | 1,2-Dichloroethane-d4 (Surr) | 86 | | 62-137 |
| 460-00-4 | 4-Bromofluorobenzene (Surr) | 88 | | 56-136 |
| 2037-26-5 | Toluene-d8 (Surr) | 91 | | 78-122 |
| 1868-53-7 | Dibromofluoromethane (Surr) | 103 | | 73-120 |

Eurofins Cleveland
Target Compound Quantitation Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795324.D
Lims ID: 240-191867-F-1 MSD
Client ID: W-2-S/091223/
Sample Type: MSD
Inject. Date: 22-Sep-2023 17:01:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-021
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Sig | RT (min.) | Exp RT (min.) | Dlt RT (min.) | Q | Response | Cal Amt ug/l | OnCol Amt ug/l | Flags |
|---|---|---|---|---|---|---|---|---|---|
| * 1 Fluorobenzene | 96 | 6.543 | 6.543 | 0.000 | 98 | 551349 | 25.0 | 25.0 | |
| * 2 Chlorobenzene-d5 | 117 | 9.283 | 9.283 | 0.000 | 89 | 447752 | 25.0 | 25.0 | |
| * 3 1,4-Dichlorobenzene-d4 | 152 | 11.263 | 11.263 | 0.000 | 94 | 241305 | 25.0 | 25.0 | |
| $ 4 Dibromofluoromethane (Surr) | 113 | 5.891 | 5.891 | 0.000 | 93 | 154180 | 25.0 | 25.8 | |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 65 | 6.271 | 6.271 | 0.000 | 94 | 180855 | 25.0 | 21.6 | |
| $ 6 Toluene-d8 (Surr) | 98 | 8.014 | 8.014 | 0.000 | 93 | 524355 | 25.0 | 22.7 | |
| $ 7 4-Bromofluorobenzene (Surr) | 95 | 10.291 | 10.291 | 0.000 | 95 | 197555 | 25.0 | 22.0 | |
| 11 Vinyl chloride | 62 | 1.515 | 1.515 | 0.000 | 98 | 75387 | 12.5 | 11.1 | |
| 19 1,1-Dichloroethene | 96 | 2.749 | 2.749 | 0.000 | 90 | 77118 | 25.0 | 24.3 | |
| 32 trans-1,2-Dichloroethene | 96 | 3.816 | 3.804 | 0.012 | 90 | 87754 | 25.0 | 23.3 | |
| 35 1,1-Dichloroethane | 63 | 4.539 | 4.539 | 0.000 | 97 | 223579 | 25.0 | 22.7 | |
| 41 cis-1,2-Dichloroethene | 96 | 5.322 | 5.322 | 0.000 | 54 | 100715 | 25.0 | 23.5 | |
| 48 1,1,1-Trichloroethane | 97 | 5.832 | 5.820 | 0.012 | 94 | 132473 | 25.0 | 23.1 | |
| 53 Benzene | 78 | 6.223 | 6.223 | 0.000 | 94 | 379194 | 25.0 | 23.9 | |
| 59 Trichloroethene | 130 | 6.887 | 6.887 | 0.000 | 89 | 128640 | 25.0 | 31.7 | |
| 71 Toluene | 91 | 8.073 | 8.073 | 0.000 | 97 | 387838 | 25.0 | 23.2 | |
| 75 Tetrachloroethene | 164 | 8.512 | 8.512 | 0.000 | 94 | 134214 | 25.0 | 38.9 | |
| 85 Ethylbenzene | 106 | 9.378 | 9.378 | 0.000 | 96 | 163592 | 25.0 | 26.0 | |
| 86 m-Xylene & p-Xylene | 106 | 9.472 | 9.472 | 0.000 | 95 | 182661 | 25.0 | 24.4 | |
| 87 o-Xylene | 106 | 9.816 | 9.816 | 0.000 | 95 | 178191 | 25.0 | 24.3 | |
| S 130 Xylenes, Total | 106 | | | | 0 | | 50.0 | 48.7 | |

## Reagents:

| | | | | |
|---|---|---|---|---|
| VMFASGW_00526 | Amount Added: | 10.00 | Units: uL | |
| vmfasaw_00482 | Amount Added: | 20.00 | Units: uL | |
| VMFASPW_00510 | Amount Added: | 20.00 | Units: uL | |
| VMFASA9W_00423 | Amount Added: | 20.00 | Units: uL | |
| vm40ml_vials_00024 | Amount Added: | 0.00 | Units: | Run Reagent |
| vm25UX18IS_00007 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vm25UX18SS_00008 | Amount Added: | 5.00 | Units: uL | Run Reagent |
| vmDist_H2o_00241 | Amount Added: | 0.00 | Units: | Run Reagent |

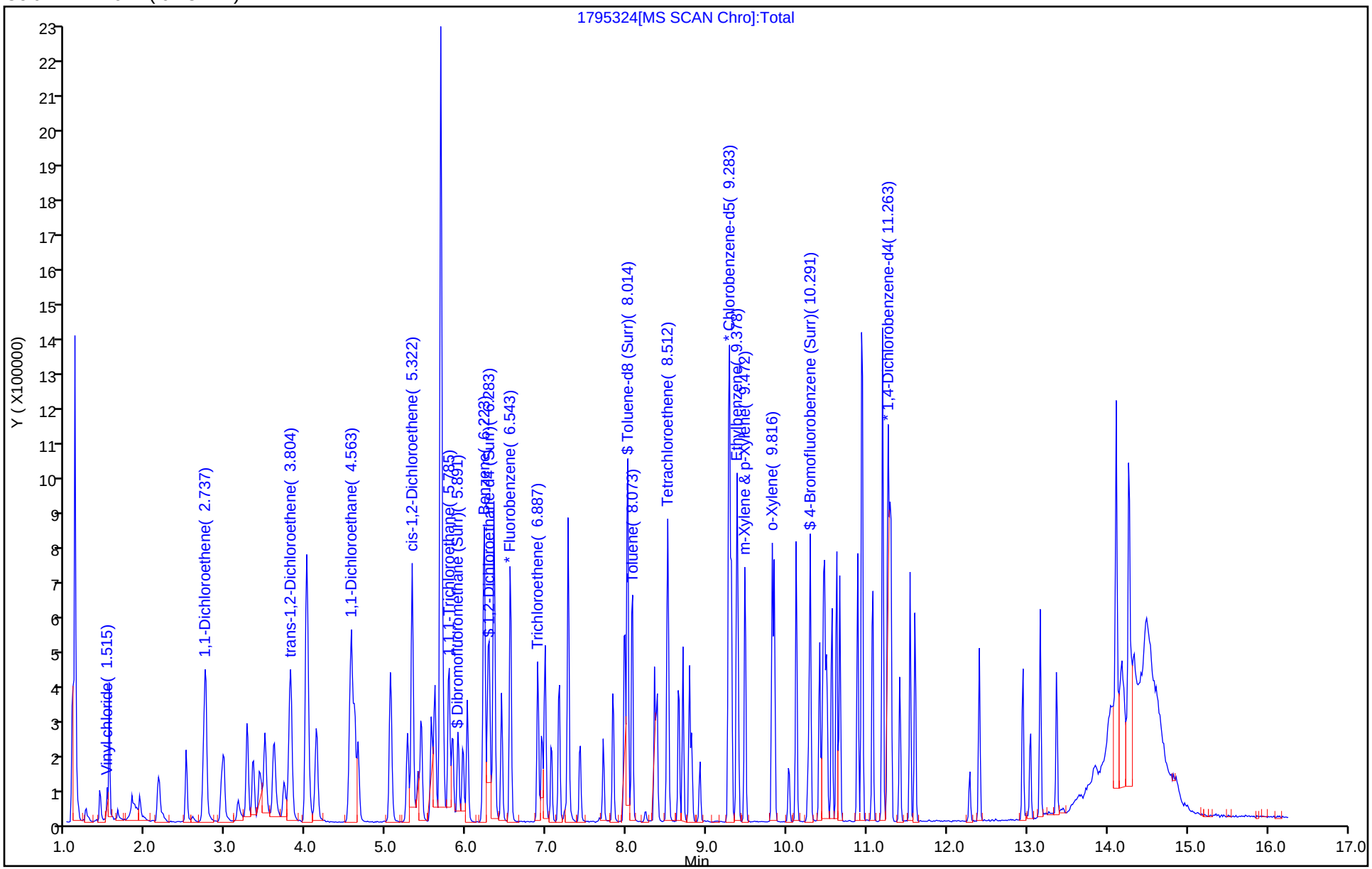
Report Date: 23-Sep-2023 09:18:31 Chrom Revision: 2.3 21-Aug-2023 17:14:06

Eurofins Cleveland

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795324.D

| | | | | | |
|---|---|---|---|---|---|
| Injection Date: | 22-Sep-2023 17:01:30 | Instrument ID: | A3UX17 | Operator ID: | 402279 |
| Lims ID: | 240-191867-F-1 MSD | | | Worklist Smp#: | 21 |
| Client ID: | W-2-S/091223/ | | | | |
| Purge Vol: | 5.000 mL | Dil. Factor: | 1.0000 | ALS Bottle#: | 20 |
| Method: | 8260_17 | Limit Group: | MSV 8260C ICAL | | |

Column: DB-624 ( 0.18 mm)



Eurofins Cleveland
Recovery Report

Data File: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\1795324.D
Lims ID: 240-191867-F-1 MSD
Client ID: W-2-S/091223/
Sample Type: MSD
Inject. Date: 22-Sep-2023 17:01:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 240-0133763-021
Operator ID: 402279 Instrument ID: A3UX17

Method: \\chromfs\Canton\ChromData\A3UX17\20230922-133763.b\8260_17.m
Limit Group: MSV 8260C ICAL
Last Update: 23-Sep-2023 09:17:59 Calib Date: 09-Aug-2023 23:21:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Canton\ChromData\A3UX17\20230809-132278.b\1794303.D

Column 1 : DB-624 ( 0.18 mm) Det: MS SCAN
Process Host: CTX1686

| Compound | Amount Added | Amount Recovered | % Rec. |
|---|---|---|---|
| $ 4 Dibromofluoromethane (Surr) | 25.0 | 25.8 | 103.22 |
| $ 5 1,2-Dichloroethane-d4 (Surr) | 25.0 | 21.6 | 86.33 |
| $ 6 Toluene-d8 (Surr) | 25.0 | 22.7 | 90.62 |
| $ 7 4-Bromofluorobenzene (Surr) | 25.0 | 22.0 | 87.84 |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Instrument ID: A3UX17 Start Date: 08/09/2023 13:17

Analysis Batch Number: 583404 End Date: 08/10/2023 00:54

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 240-583404/1 | | 08/09/2023 13:17 | 1 | BFB17259.D | DB-624 0.18(mm) |
| IC 240-583404/3 | | 08/09/2023 14:24 | 1 | 1794280.D | DB-624 0.18(mm) |
| IC 240-583404/4 | | 08/09/2023 14:47 | 1 | 1794281.D | DB-624 0.18(mm) |
| IC 240-583404/5 | | 08/09/2023 15:10 | 1 | 1794282.D | DB-624 0.18(mm) |
| IC 240-583404/6 | | 08/09/2023 15:33 | 1 | 1794283.D | DB-624 0.18(mm) |
| IC 240-583404/7 | | 08/09/2023 15:57 | 1 | 1794284.D | DB-624 0.18(mm) |
| ICIS 240-583404/8 | | 08/09/2023 16:20 | 1 | 1794285.D | DB-624 0.18(mm) |
| IC 240-583404/9 | | 08/09/2023 16:43 | 1 | 1794286.D | DB-624 0.18(mm) |
| IC 240-583404/10 | | 08/09/2023 17:07 | 1 | 1794287.D | DB-624 0.18(mm) |
| IC 240-583404/11 | | 08/09/2023 17:30 | 1 | 1794288.D | DB-624 0.18(mm) |
| ICV 240-583404/14 | | 08/09/2023 18:40 | 1 | 1794291.D | DB-624 0.18(mm) |
| ZZZZZ | | 08/09/2023 19:04 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/18 | | 08/09/2023 20:14 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/19 | | 08/09/2023 20:38 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/20 | | 08/09/2023 21:01 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/21 | | 08/09/2023 21:24 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/22 | | 08/09/2023 21:48 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/23 | | 08/09/2023 22:11 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/24 | | 08/09/2023 22:34 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/25 | | 08/09/2023 22:57 | 1 | | DB-624 0.18(mm) |
| IC 240-583404/26 | | 08/09/2023 23:21 | 1 | | DB-624 0.18(mm) |
| ICV 240-583404/28 | | 08/10/2023 00:07 | 1 | 1794305.D | DB-624 0.18(mm) |
| ZZZZZ | | 08/10/2023 00:54 | 1 | | DB-624 0.18(mm) |

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Cleveland Job No.: 240-191867-1

SDG No.:

Instrument ID: A3UX17 Start Date: 09/22/2023 09:00

Analysis Batch Number: 588192 End Date: 09/22/2023 20:08

| LAB SAMPLE ID | CLIENT SAMPLE ID | DATE ANALYZED | DILUTION FACTOR | LAB FILE ID | COLUMN ID |
|---|---|---|---|---|---|
| BFB 240-588192/1 | | 09/22/2023 09:00 | 1 | 17291A.D | DB-624 0.18(mm) |
| CCV 240-588192/2 | | 09/22/2023 09:37 | 1 | 1795305.D | DB-624 0.18(mm) |
| CCVIS 240-588192/3 | | 09/22/2023 10:00 | 1 | 1795306.D | DB-624 0.18(mm) |
| LCS 240-588192/4 | | 09/22/2023 10:23 | 1 | 1795307.D | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 10:47 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 11:11 | 1 | | DB-624 0.18(mm) |
| MB 240-588192/7 | | 09/22/2023 11:34 | 1 | 1795310.D | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 11:57 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 12:21 | 2 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 12:44 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 13:07 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 13:31 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 13:54 | 2 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 14:17 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 14:41 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 15:04 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 15:27 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 15:51 | 1 | | DB-624 0.18(mm) |
| 240-191867-1 | W-2-S/091223/ | 09/22/2023 16:14 | 1 | 1795322.D | DB-624 0.18(mm) |
| 240-191867-1 MS | W-2-S/091223/ MS | 09/22/2023 16:38 | 1 | 1795323.D | DB-624 0.18(mm) |
| 240-191867-1 MSD | W-2-S/091223/ MSD | 09/22/2023 17:01 | 1 | 1795324.D | DB-624 0.18(mm) |
| 240-191867-2 | W-4-S/091223/ | 09/22/2023 17:24 | 1 | 1795325.D | DB-624 0.18(mm) |
| 240-191867-3 | W-3-S/091223/ | 09/22/2023 17:48 | 5 | 1795326.D | DB-624 0.18(mm) |
| 240-191867-4 | HR-17/091223/ | 09/22/2023 18:12 | 5 | 1795327.D | DB-624 0.18(mm) |
| 240-191867-5 | DUP-01/091223/ | 09/22/2023 18:35 | 1 | 1795328.D | DB-624 0.18(mm) |
| 240-191867-6 | EB-02/091223/ | 09/22/2023 18:58 | 1 | 1795329.D | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 19:22 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 19:45 | 1 | | DB-624 0.18(mm) |
| ZZZZZ | | 09/22/2023 20:08 | 1 | | DB-624 0.18(mm) |

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191867-1

SDG No.:

Batch Number: 583404  Batch Start Date: 08/09/23 13:17  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | vm25UX18IS 00007 | vm25UX18SS 00008 | VMAROLISTDW 00496 | VMBFB 00032 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-583404/1 | | 8260D | | 5 mL | 5 mL | | | | 2 uL |
| IC 240-583404/3 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 0.4 uL | |
| IC 240-583404/4 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 0.8 uL | |
| IC 240-583404/5 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 2 uL | |
| IC 240-583404/6 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 5 uL | |
| IC 240-583404/7 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 10 uL | |
| ICIS 240-583404/8 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 20 uL | |
| IC 240-583404/9 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 30 uL | |
| IC 240-583404/10 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 40 uL | |
| IC 240-583404/11 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | 50 uL | |
| ICV 240-583404/14 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | | |
| ICV 240-583404/28 | | 8260D | | 5 mL | 5 mL | 5 uL | 5 uL | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMFASA9W 00416 | VMFASAW 00475 | VMFASGW 00520 | VMFASPW 00504 | VMRGAS 00488 | VMRPRIMW 00543 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-583404/1 | | 8260D | | | | | | | |
| IC 240-583404/3 | | 8260D | | | | | | 0.4 uL | 0.4 uL |
| IC 240-583404/4 | | 8260D | | | | | | 0.8 uL | 0.8 uL |
| IC 240-583404/5 | | 8260D | | | | | | 2 uL | 2 uL |
| IC 240-583404/6 | | 8260D | | | | | | 5 uL | 5 uL |
| IC 240-583404/7 | | 8260D | | | | | | 10 uL | 10 uL |
| ICIS 240-583404/8 | | 8260D | | | | | | 20 uL | 20 uL |
| IC 240-583404/9 | | 8260D | | | | | | 30 uL | 30 uL |
| IC 240-583404/10 | | 8260D | | | | | | 40 uL | 40 uL |
| IC 240-583404/11 | | 8260D | | | | | | 50 uL | 50 uL |
| ICV 240-583404/14 | | 8260D | | | 20 uL | 10 uL | 20 uL | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191867-1

SDG No.:

Batch Number: 583404  Batch Start Date: 08/09/23 13:17  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMFASA9W 00416 | VMFASAW 00475 | VMFASGW 00520 | VMFASPW 00504 | VMRGAS 00488 | VMRPRIMW 00543 |
|---|---|---|---|---|---|---|---|---|---|
| ICV 240-583404/28 | | 8260D | | 20 uL | | | | | |

| Batch Notes | |
|---|---|
| pH Indicator ID | HC210330 |

| Basis | Basis Description |
|---|---|
| | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191867-1

SDG No.:

Batch Number: 588192  Batch Start Date: 09/22/23 09:00  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | InitialAmount | FinalAmount | Initial pH | vm25UX18IS 00007 | vm25UX18SS 00008 | vmarolistdw 00502 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-588192/1 | | 8260D | | 5 mL | 5 mL | | | | |
| CCV 240-588192/2 | | 8260D | | 5 mL | 5 mL | | 5 uL | | |
| CCVIS 240-588192/3 | | 8260D | | 5 mL | 5 mL | | 5 uL | 5 uL | 20 uL |
| LCS 240-588192/4 | | 8260D | | 5 mL | 5 mL | | 5 uL | 5 uL | |
| MB 240-588192/7 | | 8260D | | 5 mL | 5 mL | | 5 uL | 5 uL | |
| 240-191867-C-1 | W-2-S/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |
| 240-191867-G-1 MS | W-2-S/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |
| 240-191867-F-1 MSD | W-2-S/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |
| 240-191867-C-2 | W-4-S/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |
| 240-191867-B-3 | W-3-S/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |
| 240-191867-C-4 | HR-17/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |
| 240-191867-A-5 | DUP-01/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |
| 240-191867-C-6 | EB-02/091223/ | 8260D | T | 5 mL | 5 mL | <2 SU | 5 uL | 5 uL | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMBFB 00032 | VMFASA9W 00423 | vmfasaw 00482 | VMFASGW 00526 | VMFASPW 00510 | VMRA9W 00498 |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-588192/1 | | 8260D | | 1 uL | | | | | |
| CCV 240-588192/2 | | 8260D | | | | | | | 20 uL |
| CCVIS 240-588192/3 | | 8260D | | | | | | | |
| LCS 240-588192/4 | | 8260D | | | | 20 uL | 10 uL | 20 uL | |
| MB 240-588192/7 | | 8260D | | | | | | | |
| 240-191867-C-1 | W-2-S/091223/ | 8260D | T | | | | | | |
| 240-191867-G-1 MS | W-2-S/091223/ | 8260D | T | | 20 uL | 20 uL | 10 uL | 20 uL | |
| 240-191867-F-1 MSD | W-2-S/091223/ | 8260D | T | | 20 uL | 20 uL | 10 uL | 20 uL | |
| 240-191867-C-2 | W-4-S/091223/ | 8260D | T | | | | | | |
| 240-191867-B-3 | W-3-S/091223/ | 8260D | T | | | | | | |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Cleveland  Job No.: 240-191867-1

SDG No.:

Batch Number: 588192  Batch Start Date: 09/22/23 09:00  Batch Analyst: Evans, Laura

Batch Method: 8260D  Batch End Date:

| Lab Sample ID | Client Sample ID | Method Chain | Basis | VMBFB 00032 | VMFASA9W 00423 | vmfasaw 00482 | VMFASGW 00526 | VMFASPW 00510 | VMRA9W 00498 |
|---|---|---|---|---|---|---|---|---|---|
| 240-191867-C-4 | HR-17/091223/ | 8260D | T | | | | | | |
| 240-191867-A-5 | DUP-01/091223/ | 8260D | T | | | | | | |
| 240-191867-C-6 | EB-02/091223/ | 8260D | T | | | | | | |

| Lab Sample ID | Client Sample ID | Method Chain | Basis | vmrgas 00494 | VMRPRIMW 00548 | | | | |
|---|---|---|---|---|---|---|---|---|---|
| BFB 240-588192/1 | | 8260D | | | | | | | |
| CCV 240-588192/2 | | 8260D | | | | | | | |
| CCVIS 240-588192/3 | | 8260D | | 20 uL | 20 uL | | | | |
| LCS 240-588192/4 | | 8260D | | | | | | | |
| MB 240-588192/7 | | 8260D | | | | | | | |
| 240-191867-C-1 | W-2-S/091223/ | 8260D | T | | | | | | |
| 240-191867-G-1 MS | W-2-S/091223/ | 8260D | T | | | | | | |
| 240-191867-F-1 MSD | W-2-S/091223/ | 8260D | T | | | | | | |
| 240-191867-C-2 | W-4-S/091223/ | 8260D | T | | | | | | |
| 240-191867-B-3 | W-3-S/091223/ | 8260D | T | | | | | | |
| 240-191867-C-4 | HR-17/091223/ | 8260D | T | | | | | | |
| 240-191867-A-5 | DUP-01/091223/ | 8260D | T | | | | | | |
| 240-191867-C-6 | EB-02/091223/ | 8260D | T | | | | | | |

| Batch Notes | |
|---|---|
| pH Indicator ID | HC312502 |

| Basis | Basis Description |
|---|---|
| T | Total/NA |

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# Shipping and Receiving Documents

**Eurofins Cleveland**
180 S. Van Buren Avenue
Barberton, OH 44203
Phone: 330-497-9396 Fax: 330-497-0772

# Chain of Custody Record

Columbus
209

eurofins
Environment Testing

| Client Information | Sampler: Luke Holben | Lab PM: DelMonico, Michael | Carrier Tracking No(s): | COC No: 240-111715-39788.2 |
|---|---|---|---|---|
| Client Contact: Kari Eldridge | Phone: 419-704-3859 | E-Mail: Michael.DelMonico@et.eurofinsus.com | State of Origin: OH | Page: ~~Page 2 of 4~~ ~~10f1~~ LH 1 of 1 |
| Company: ARCADIS U.S., Inc | PWSID: | Analysis Requested | | Job #: |
| Address: 4665 Cornell Road Suite 200 | Due Date Requested: | | | Preservation Codes: A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify); Other: |
| City: Cincinnati | TAT Requested (days): Standard | | | |
| State, Zip: OH, 45241 | Compliance Project: Δ Yes Δ No | | | |
| Phone: | PO #: ~~30173252.0003E~~ LH 30173252.00095 | | | |
| Email: kari.eldridge@arcadis.com | WO #: | | | |
| Project Name: Racer Moraine Annual | Project #: 24006917 | | | |
| Site: Racer Moraine OH | SSOW#: | | | |

| Sample Identification | Sample Date | Sample Time | Sample Type (C=Comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 8260D - VOCs- 12 site compound list | 9060A - Local Method | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|---|
| South Lagoon Wells | | | Preservation Code: | | | | A | S | | |
| W-2-S/091223/ | 9.12.23 | 1110 | G | Water | N | Y | X | | 9 | MS/MSD |
| W-4-S/091223/ | 9.12.23 | 1240 | G | Water | N | N | X | | 4 | 10x dilution |
| W-3-S/091223/ | 9.12.23 | 1400 | G | Water | N | N | X | | 4 | 10x dilution |
| HR-17/091223/ | 9.12.23 | 1530 | G | Water | N | N | X | | 4 | 10x dilution |
| DUP-01/091223/ | 9.12.23 | — | G | Water | N | N | X | | 3 | |
| EB-02/091223/ | 9.12.23 | 1730 | G | Water | N | N | X | | 3 | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |
| | | | | Water | | | | | | |

240-191867 Chain of Custody

*Possible Hazard Identification*
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

*Sample Disposal ( A fee may be assessed if sa...*
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify): Level IV

Special Instructions/QC Requirements:

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| Relinquished by | Date/Time | Company | Received by | Date/Time | Company |
|---|---|---|---|---|---|
| Luke Holben | 9/13/23 1800 | Arcadis | Modesq (ocr | 9.16.23 9.22 | |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

Ver: 06/08/2021



09/26/2023

**Eurofins – Cleveland Sample Receipt Form/Narrative** **Login # :** _____
**Barberton Facility**

Client ARCADIS Site Name _____ Cooler unpacked by: M. Loca

Cooler Received on 9-16-23 Opened on 9-16-23

FedEx: 1st ~~Grd~~ ~~Exp~~ UPS FAS Waypoint Client Drop Off Eurofins Courier Other _____

**Receipt After-hours:** Drop-off Date/Time _____ Storage Location _____

Eurofins Cooler # 21 Foam Box Client Cooler Box Other _____

Packing material used: ~~Bubble Wrap~~ Foam Plastic Bag None Other _____

COOLANT: Wet Ice ~~Blue Ice~~ Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form

IR GUN # 21 (CF ~~0.2~~ °C) Observed Cooler Temp. 0.4 °C Corrected Cooler Temp. 0.2 °C

| | |
|---|---|
| 2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity _____ | Yes No |
| -Were the seals on the outside of the cooler(s) signed & dated? | Yes No NA |
| -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? | Yes No |
| -Were tamper/custody seals intact and uncompromised? | Yes No NA |
| 3. Shippers' packing slip attached to the cooler(s)? | Yes No |
| 4. Did custody papers accompany the sample(s)? | Yes No |
| 5. Were the custody papers relinquished & signed in the appropriate place? | Yes No |
| 6. Was/were the person(s) who collected the samples clearly identified on the COC? | Yes No |
| 7. Did all bottles arrive in good condition (Unbroken)? | Yes No |
| 8. Could all bottle labels (ID/Date/Time) be reconciled with the COC? | Yes No |
| 9. For each sample, does the COC specify preservatives (Y/N), # of containers (Y/N), and sample type of grab/comp (Y/N)? | |
| 10. Were correct bottle(s) used for the test(s) indicated? | Yes No |
| 11. Sufficient quantity received to perform indicated analyses? | Yes No |
| 12. Are these work share samples and all listed on the COC? | Yes No |
| If yes, Questions 13-17 have been checked at the originating laboratory. | |
| 13. Were all preserved sample(s) at the correct pH upon receipt? | Yes No NA pH Strip Lot# HC312501 |
| 14. Were VOAs on the COC? | Yes No |
| 15. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. | Yes No NA |
| 16. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ | Yes No |
| 17. Was a LL Hg or Me Hg trip blank present? _____ | Yes No |

**Tests that are not checked for pH by Receiving:**

**VOAs**
**Oil and Grease**
**TOC**

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

**18. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES** ☐ additional next page

Samples processed by: _____

**19. SAMPLE CONDITION**

Sample(s) _____ were received after the recommended holding time had expired.

Sample(s) _____ were received in a broken container.

Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

**20. SAMPLE PRESERVATION**

Sample(s) _____ were further preserved in the laboratory.

Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

# Appendix B

## Annual Groundwater Sampling Event Field Parameters Data Sheet for 2023

**Appendix B**
**Annual Groundwater Sampling Event Field Parameters Data Sheet for 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well ID | Sample ID | pH (s.u.) | Temp (°C) | ORP (mV) | Cond (mS/cm) | DO (mg/L) | Purge Rate (mL/min) | Purge Start Time | Purge End Time | Volume Purged (gallons) | Sample Date | Time Sampled | Sampler |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DN-13 | DN-13/091523/ | 6.40 | 17.54 | 77.0 | 1.13 | 3.78 | NA | 15:30 | 15:35 | NA | 9/15/2023 | 15:35 | Luke Holben |
| GM-19S | GM-19S/091523/ | 6.04 | 16.27 | -114.0 | 1.16 | 2.18 | 400 | 12:30 | 13:20 | 3.86 | 9/15/2023 | 13:10 | Luke Holben |
| GM-2 | GM-2/091523/ | 5.96 | 16.27 | 64.0 | 1.13 | 0.23 | 420 | 14:05 | 15:09 | 4.30 | 9/15/2023 | 14:50 | Luke Holben |
| GM-21 | GM-21/091523/ | 5.68 | 17.40 | -98.0 | 1.63 | 2.45 | 400 | 10:55 | 11:57 | 4.23 | 9/15/2023 | 11:40 | Luke Holben |
| GM-32 | GM-32/091523/ | 5.69 | 15.01 | -129.0 | 1.14 | 0.28 | 420 | 9:05 | 10:00 | 4.91 | 9/15/2023 | 9:55 | Luke Holben |
| GM-47 | GM-47/091423/ | 6.23 | 17.46 | 118.0 | 1.21 | 0.27 | 400 | 16:30 | 17:35 | 4.89 | 9/14/2023 | 17:30 | Luke Holben |
| GM-50 | GM-50/091423/ | 6.10 | 18.67 | 204.0 | 1.17 | 1.20 | 390 | 17:55 | 18:55 | 4.29 | 9/14/2023 | 18:50 | Luke Holben |
| GM-51 | GM-51/091423/ | 5.93 | 16.20 | 209.0 | 1.16 | 1.85 | 480 | 9:10 | 10:30 | 8.85 | 9/14/2023 | 10:25 | Luke Holben |
| GM-63 | GM-63/091323/ | 6.38 | 17.63 | 127.0 | 1.12 | 5.55 | 440 | 12:45 | 13:30 | 3.80 | 9/13/2023 | 13:25 | Luke Holben |
| GM-64 | GM-64/091323/ | 6.40 | 17.41 | -81.0 | 1.11 | 0.68 | 420 | 11:10 | 12:15 | 6.29 | 9/13/2023 | 12:10 | Luke Holben |
| HR-17 | HR-17/091223/ | 6.53 | 16.83 | 171.0 | 1.19 | 1.68 | 440 | 15:05 | 15:38 | 2.48 | 9/12/2023 | 15:30 | Luke Holben |
| HR-4 | HR-4/091123/ | 6.12 | 15.25 | 85.0 | 1.10 | 0.57 | 450 | 11:50 | 12:40 | 4.91 | 9/11/2023 | 12:35 | Luke Holben |
| RMW-101 | RMW-101/091423 | 6.51 | 16.86 | 54.0 | 1.26 | 0.26 | 400 | 12:55 | 13:45 | 5.18 | 9/14/2023 | 13:50 | Luke Holben |
| RMW-102 | RMW-102/091423 | 6.56 | 16.73 | 161.0 | 1.04 | 4.83 | 400 | 11:05 | 12:00 | 5.68 | 9/14/2023 | 12:05 | Luke Holben |
| RMW-93 | RMW-93/091323/ | 6.11 | 16.16 | 89.0 | 1.06 | 4.92 | 400 | 14:30 | 15:05 | 3.80 | 9/13/2023 | 15:10 | Luke Holben |
| RMW-94 | RMW-94/091323/ | 6.44 | 16.21 | 161.0 | 1.03 | 1.22 | 380 | 16:20 | 17:00 | 3.88 | 9/13/2023 | 17:05 | Luke Holben |
| RMW-99 | RMW-99/091423/ | 6.37 | 17.30 | 130.0 | 1.14 | 1.47 | 380 | 14:30 | 15:25 | 5.63 | 9/14/2023 | 15:30 | Luke Holben |
| W-2-N | W-2-N/091123/ | 6.29 | 16.25 | -89.0 | 1.17 | 0.58 | 400 | 9:55 | 10:35 | 4.23 | 9/11/2023 | 10:40 | Luke Holben |
| W-2-S | W-2-S/091223/ | 6.13 | 16.20 | 183.0 | 1.07 | 0.70 | 420 | 10:20 | 11:05 | 5.49 | 9/12/2023 | 11:10 | Luke Holben |
| W-3-N | W-3-N/091123/ | 5.52 | 16.77 | -104.0 | 1.39 | 0.39 | 420 | 15:40 | 16:40 | 6.62 | 9/11/2023 | 16:45 | Luke Holben |
| W-3-S | W-3-S/091223/ | 6.50 | 16.20 | 109.0 | 1.04 | 0.38 | 380 | 13:20 | 13:55 | 3.59 | 9/12/2023 | 14:00 | Luke Holben |
| W-4-N | W-4-N/091123/ | 6.00 | 14.68 | 12.0 | 1.35 | 0.39 | 480 | 13:35 | 14:30 | 6.95 | 9/11/2023 | 14:35 | Luke Holben |
| W-4-S | W-4-S/091223/ | 6.39 | 16.09 | 179.0 | 1.17 | 0.86 | 380 | 12:00 | 12:35 | 3.59 | 9/12/2023 | 12:40 | Luke Holben |
| WSU-23 | WSU-23/091323/ | 6.13 | 15.87 | 79.0 | 1.09 | 0.36 | 460 | 16:05 | 17:00 | 4.57 | 9/13/2023 | 16:50 | Luke Holben |

**Notes:**
Cond - Conductivity
ºC - Degrees Celsius.
DO - Dissolved Oxygen.
mg/L - Milligrams per Liter.
mL/min - Milliliters per Minute
mS/cm - Millisiemens per Centimeter.
mV - Millivolts.
NM - Not Measured.
ORP - Oxidation Reduction Potential.
s.u. - Standard Units.
Temp - Temperature.

# Appendix C

## Groundwater VOC Analytical Data for 2023 Including QA/QC Samples

**Appendix C**
**Groundwater VOC Analytical Data for 2023 Including QA/QC Samples**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| | | | Phase 1 DGR TM System Performance Monitoring Wells | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site-Specific Volatile Organic Compounds | Units | Location ID<br>Sample Type<br>Date<br>U.S. EPA MCL[1] | GM-47<br>N<br>9/14/2023<br>Upper Aquifer | GM-50<br>N<br>9/14/2023<br>Upper Aquifer | GM-51<br>N<br>9/14/2023<br>Upper Aquifer | GM-63<br>N<br>9/13/2023<br>Upper Aquifer | GM-64<br>N<br>9/13/2023<br>Upper Aquifer | RMW-101<br>N<br>9/14/2023<br>Upper Aquifer | RMW-102<br>N<br>9/14/2023<br>Upper Aquifer | RMW-93<br>N<br>9/13/2023<br>Upper Aquifer | RMW-94<br>N<br>9/12/2023<br>Upper Aquifer | RMW-99<br>N<br>9/14/2023<br>Upper Aquifer | WSU-23<br>N<br>9/13/2023<br>Upper Aquifer |
| 1,1,1-Trichloroethane | ug/L | 200 | < 1.0 U | 1.2 | 0.75 J | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.67 J | 1.2 |
| 1,1-Dichloroethane | ug/L | -- | 0.86 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.50 J | 0.79 J | 0.92 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.64 J |
| 1,1-Dichloroethene | ug/L | 7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Benzene | ug/L | 5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| cis-1,2-Dichloroethene | ug/L | 70 | 4.9 | 0.54 J | < 1.0 U | < 1.0 U | 1.1 | 0.46 J | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | 0.86 J |
| Ethylbenzene | ug/L | 700 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Tetrachloroethene | ug/L | 5 | **24** | **5.1** | **24** | 5.0 | 3.2 | 0.46 J | **7.1** | 1.7 | 3.0 | **25** | **37** |
| Toluene | ug/L | 1,000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| trans-1,2-Dichloroethene | ug/L | 100 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Trichloroethene | ug/L | 5 | **13** | 1.1 | 0.86 J | 0.52 J | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.5** |
| Vinyl chloride | ug/L | 2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Xylene (total) | ug/L | 10,000 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U |
| **Total Site-Specific VOCs** | µg/L | -- | 42.76 | 7.94 | 25.61 | 6.16 | 5.44 | 1.71 | 9.12 | 1.7 | 3 | 25.67 | 45.2 |

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
**BOLD** - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) idicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
U - Constituent not detected above laboratory reporting limit shown.
UJ - The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
QA/QC - Quality Assurance/Quality Check
N - Normal

**Appendix C**
**Groundwater VOC Analytical Data for 2023 Including QA/QC Samples**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| | | | Downgradient Reactive Zone Performance Monitorng Wells | | | | Closed South Settling Lagoon Monitoring Wells | | | | Closed North Settling Lagoon Monitoring Wells | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site-Specific Volatile Organic Compounds | Units | Location ID<br>Sample Type<br>Date<br>U.S. EPA MCL[1] | GM-02<br>N<br>9/15/2023<br>Upper Aquifer | GM-19S<br>N<br>9/15/2023<br>Upper Aquifer | GM-21<br>N<br>9/15/2023<br>Upper Aquifer | GM-32<br>N<br>9/13/2023<br>Upper Aquifer | HR-17<br>N<br>9/12/2023<br>Upper Aquifer | W-2-S<br>N<br>9/12/2023<br>Upper Aquifer | W-3-S<br>N<br>9/12/2023<br>Upper Aquifer | W-4-S<br>N<br>9/12/2023<br>Upper Aquifer | HR-04<br>N<br>9/11/2023<br>Upper Aquifer | W-2-N<br>N<br>9/11/2023<br>Upper Aquifer | W-3-N<br>N<br>9/11/2023<br>Upper Aquifer | W-4-N<br>N<br>9/11/2023<br>Upper Aquifer |
| 1,1,1-Trichloroethane | ug/L | 200 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | 0.70 J | < 5.0 U | 1.0 | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U |
| 1,1-Dichloroethane | ug/L | -- | < 1.0 U | 1.8 | 5.4 | 0.70 J | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 7.5 |
| 1,1-Dichloroethene | ug/L | 7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Benzene | ug/L | 5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| cis-1,2-Dichloroethene | ug/L | 70 | < 1.0 U | 26 | 4.8 | < 1.0 U | < 5.0 U | 1.1 | < 5.0 U | < 1.0 U | 0.73 J | 1.7 | 13 | 6.9 |
| Ethylbenzene | ug/L | 700 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Tetrachloroethene | ug/L | 5 | **37** | **5.5** | < 1.0 U | < 1.0 U | **200** | **12** | **150** | **22** | < 1.0 U | < 1.0 U | < 1.0 U | 0.55 J |
| Toluene | ug/L | 1,000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| trans-1,2-Dichloroethene | ug/L | 100 | < 1.0 U | < 1.0 U | 0.96 J | < 1.0 U | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 |
| Trichloroethene | ug/L | 5 | 2.0 | 3.9 | 0.55 J | < 1.0 U | < 5.0 U | **6.3** | < 5.0 U | 1.0 | 0.44 J | 0.55 J | < 1.0 U | **8.7** |
| Vinyl chloride | ug/L | 2 | < 1.0 U | 0.74 J | 2.0 | < 1.0 U | < 5.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 UJ | < 1.0 UJ | 0.71 J- | < 1.0 UJ |
| Xylene (total) | ug/L | 10,000 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 10 U | < 2.0 U | < 10 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U |
| **Total Site-Specific VOCs** | µg/L | -- | 39 | 37.94 | 13.71 | 0.7 | 200 | 20.1 | 150 | 24 | 4.67 | 2.25 | 13.71 | 24.75 |

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
**BOLD** - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) idicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
U - Constituent not detected above laboratory reporting limit shown.
UJ - The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
QA/QC - Quality Assurance/Quality Check
N - Normal

**Appendix C**
**Groundwater VOC Analytical Data for 2023 Including QA/QC Samples**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| | | | DN-13 Performance Monitoring | QA/QC Samples | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Site-Specific Volatile Organic Compounds | Units | Location ID<br>Sample Type<br>Date<br>U.S. EPA MCL[1] | DN-13<br>N<br>9/15/2023<br>Lower Aquifer | Duplicate<br>(W-2-S)<br>9/12/2023 | Duplicate<br>(GM-02)<br>9/15/2023 | Equipment Blank<br>9/11/2023 | Equipment Blank<br>9/12/2023 | Equipment Blank<br>9/13/2023 | Equipment Blank<br>9/14/2023 | Equipment Blank<br>9/15/2023 | Trip Blank<br>9/11/2023 |
| 1,1,1-Trichloroethane | ug/L | 200 | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| 1,1-Dichloroethane | ug/L | -- | 0.99 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| 1,1-Dichloroethene | ug/L | 7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Benzene | ug/L | 5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| cis-1,2-Dichloroethene | ug/L | 70 | 4.3 | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Ethylbenzene | ug/L | 700 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Tetrachloroethene | ug/L | 5 | 1.5 | **11** | **35** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Toluene | ug/L | 1,000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| trans-1,2-Dichloroethene | ug/L | 100 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Trichloroethene | ug/L | 5 | 4.7 | **6.0** | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| Vinyl chloride | ug/L | 2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ |
| Xylene (total) | ug/L | 10,000 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U |
| **Total Site-Specific VOCs** | µg/L | -- | 11.49 | 19.3 | 37 | 0 | 0 | 0 | 0 | 0 | 0 |

NOTES:
MCL - Maximum Contaminant Level - U.S. EPA drinking water standard.
[1] - An MCL is not listed for 1,1-dichloroethane.
< - Constituent not detected above laboratory reporting limit shown.
**BOLD** - Result above MCL.
µg/L - Micrograms per Liter.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) idicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
U - Constituent not detected above laboratory reporting limit shown.
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QA/QC - Quality Assurance/Quality Check
N - Normal

# Appendix D

## Groundwater VOC Analytical Results from 1999 to 2023

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| **Upgradient of the Site** | | | | | | | | | | | | | |
| GM-24 | 9/23/1999 | 2.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 12/11/2015 | 8.1 | 0.67 J | < 1.0 U | < 1.0 U | 0.82 J | < 1.0 U | < 1.0 U | 4.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/16/2016 | 10 | 0.84 J | < 1.0 U | 1.5 | 1.2 | < 1.0 U | < 1.0 U | 4.5 | 0.94 J | < 1.0 U | < 1.0 U | < 2.0 U |
| HR-11 | 9/14/1999 | < 1.0 U | 14 | < 1.0 U | < 1.0 U | 3.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/18/2000 | < 1.0 U | 33 | < 1.0 U | < 1.0 U | 19 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | < 1.0 U |
| | 11/6/2001 | 0.30 J | 33 | < 1.0 U | < 1.0 U | 18 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U |
| | 9/26/2002 | < 1.0 U | 18 | < 1.0 U | < 1.0 U | 6.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.72 | < 1.0 U | < 1.0 U |
| | 9/18/2003 | < 1.0 U | 10 | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/15/2004 | < 1.0 U | 7.3 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/17/2005 | < 1.0 U | 6.5 | < 1.0 U | < 1.0 U | 0.72 J | < 1.0 U | **6.0** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2006 | < 1.0 U | 6.7 | < 1.0 U | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/19/2007 | < 1.0 U | 7.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2008 | < 1.0 U | 5.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 4.4 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.24 J | < 1.0 U | < 2.0 U |
| **On-Site** | | | | | | | | | | | | | |
| GM-6 | 9/20/1999 | 25 | 33 | 1.2 | < 1.0 U | 53 | < 10 U | **81** | **78** | < 1.0 U | 2.0 | 1.6 | < 10 U |
| | 9/26/2000 | 12 | 13 | < 1.0 U | < 1.0 U | 41 | < 1.0 U | **52** | **57** | < 1.0 U | 2.2 | **3.7** | < 1.0 U |
| | 11/9/2001 | 3.9 | 14 | < 2.0 U | < 2.0 U | 8.2 | < 2.0 U | **14** | **48** | < 2.0 U | 1.8 | 1.9J | < 2.0 U |
| | 9/20/2002 | 1.4 J | 60 | < 2.0 U | 2.2 | 43 | < 2.0 U | **14** | **33** | < 2.0 U | 8.6 | **12** | < 2.0 U |
| | 10/2/2003 | 0.19 J | 20 | < 1.0 U | 1.0 | 13 | 0.22 J | **11** | **23** | < 1.0 U | 2.5 | **3.3** | < 1.0 U |
| | 9/14/2004 | < 1.0 U | 18 | < 1.0 U | 1.7 | 10 | < 1.0 U | 2.6 | **5.7** | < 1.0 U | 1.9 | **3.0** | < 1.0 U |
| | 10/19/2005 | < 1.0 U | 21 | < 1.0 U | 0.49 J | 20 | < 1.0 U | 0.34 J | 1.4 | < 1.0 U | 2.1 | **11** | < 2.0 U |
| | 9/19/2006 | < 1.0 U | 16 | < 1.0 U | < 1.0 U | 18 | < 1.0 U | < 1.0 U | 0.35 J | < 1.0 U | 1.6 | **7.3** | < 2.0 U |
| | 9/18/2007 | < 1.0 U | 26 | < 1.0 U | 0.42 J | 16 | < 1.0 U | < 1.0 U | 0.34 J | < 1.0 U | 2.6 | **6.7** | < 2.0 U |
| | 9/24/2008 | < 1.0 U | < 8.0 U | < 1.0 U | 1.2 | 6.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | **2.1** | < 2.0 U |
| | 11/11/2009 | < 1.0 U | 6.9 | < 1.0 U | 1.3 | 3.4 | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | 0.68 J | 1.2 | < 2.0 U |
| | 9/27/2010 | < 1.0 U | 6.2 | < 1.0 U | 1.1 | 4.9 | < 1.0 U | 0.38 J | **6.6** | < 1.0 U | 0.89 J | 1.6 | < 2.0 U |
| | 9/29/2011 | < 1.0 U | 4.5 | < 1.0 U | 1.0 | 3.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.84 J | 1.5 | < 2.0 U |
| | 9/6/2012 | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | < 1.0 U | 0.66 J | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | 0.79 J | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | 0.23 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 12/8/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/22/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.29 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/16/2017 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/24/2018 | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | 0.40 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.65 J | < 2.0 U |
| | 7/11/2019 | < 1.0 U | 0.23 J | < 1.0 U | < 1.0 U | 0.38 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.25 J | < 2.0 U |
| | 7/31/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-8 | 9/20/1999 | 1.9 | 30.2 | < 1.0 U | 3.4 | 26.2 | 20.7 | **14.8** | **30.4** | < 1.0 U | 12 | **8.4** | 2.3 |
| | 9/26/2000 | < 1.0 U | 37 | < 1.0 U | 1.1 | 1.5 | 13 | < 1.0 U | **6.6** | < 1.0 U | 5.4 | **2.4** | 1.9 |
| | 11/9/2001 | 0.40 J | 40 | < 1.0 U | 0.78 J | 2.0 | 0.40 J | < 1.0 U | 4.4 | < 1.0 U | 3.6 | 1.9 | 0.39J |
| | 9/20/2002 | < 2.0 U | 63 | < 2.0 U | **5.5** | 5.5 | 7.5 | < 2.0 U | < 2.0 U | 1.8 J | 9 | **5.8** | 1.5J |
| | 10/1/2003 | < 2.0 U | 48 | < 2.0 U | **5.4** | < 1.0 U | 11 | < 2.0 U | < 2.0 U | < 2.0 U | 4.4 | < 2.0 U | < 2.0 U |
| | 9/14/2004 | < 1.0 U | 15 | < 1.0 U | 4.2 | < 0.50 U | 19 | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | 0.48 J | 1.1 |
| | 10/19/2005 | < 1.0 U | 16 | < 1.0 U | 3.5 | 0.24 J | 29 | < 1.0 U | < 1.0 U | 0.39 J | 0.99 J | 0.73 J | < 2.0 U |
| | 9/19/2006 | < 5.0 U | 18 | < 5.0 U | 2.1 J | 2.1 J | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | 1.0 J | **3.2 J** | < 1.0 U |
| | 9/18/2007 | < 2.0 U | 9.1 | < 2.0 U | 2.4 | < 2.0 U | 1.7 J | < 2.0 U | < 2.0 U | < 2.0 U | 0.9 J | < 2.0 U | 0.9 J |
| | 9/23/2008 | < 1.0 U | 1.7 | < 1.0 U | **6.8** | < 1.0 U | 8.6 | < 1.0 U | < 1.0 U | < 1.0 U | 0.27 J | 0.48 J | 3.9 |
| | 11/16/2009 | < 1.0 U | 2.9 | < 1.0 U | 3.9 | < 1.0 U | 5.5 | 0.34 J | < 1.0 U | 0.13 J | 0.22 J | < 1.0 U | 1.3 J |
| | 9/27/2010 | < 1.0 U | 3.0 | < 1.0 U | 4.7 | < 1.0 U | 0.33 J | < 1.0 U | < 1.0 U | 0.18 J | 0.29 J | 0.44 J | < 2.0 U |
| | 9/29/2011 | < 1.0 U | 1.9 | < 1.0 U | 3.5 | < 1.0 U | 5.4 | < 1.0 U | < 1.0 U | < 1.0 U | 0.20 J | 0.24 J | 0.99 J |
| | 9/6/2012 | < 1.0 U | 0.66 J | < 1.0 U | 3.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 0.88 J | < 1.0 U | 1.9 | 0.27 J | < 1.0 U | < 1.0 U | 0.21 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 0.59 J | < 1.0 U | 1.2 | 0.23 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.58 J | < 2.0 U |
| | 12/8/2015 | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.53 J | < 2.0 U |
| | 8/22/2016 | < 1.0 U | 0.37 J | < 1.0 U | 0.79 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/16/2017 | < 1.0 U | 0.44 J | < 1.0 U | 0.86 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.31 J |
| | 7/24/2018 | < 1.0 U | 0.47 J | < 1.0 U | 1.3 | 0.30 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.91 J | < 2.0 U |
| | 7/11/2019 | < 1.0 U | 0.40 J | < 1.0 U | 1.6 | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.25 J | < 2.0 U |
| | 7/31/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.3 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-19S | 9/20/1999 | 16 | 7.7 | 1.0 | < 1.0 U | 35 | < 10 | **46** | **71** | < 1.0 U | 2.3 | < 1.0 U | < 10 |
| | 9/22/2000 | 15 | 4.4 | < 1.0 U | < 1.0 U | 38 | < 1.0 U | **68** | **104** | < 1.0 U | 2.6 | < 1.0 U | < 1.0 U |
| | 11/12/2001 | 7.6 | 2.9J | < 3.3 U | < 3.3 U | 26 | < 3.3 U | **64** | **97** | < 3.3 U | 2.0 | < 3.3 U | < 3.3 U |
| | 9/26/2002 | 6.3 | 6.3 | < 4.0 U | < 4.0 U | 39 | < 4.0 U | **52** | **110** | < 4.0 U | 2.7 | **5.2** | < 4.0 U |
| | 9/25/2003 | 13 | 8.3 | 1.6 J | < 5.0 U | **89** | < 5.0 U | **62** | **140** | < 5.0 U | 2.9 | < 5.0 U | < 5.0 U |
| | 9/13/2004 | 14 | 8.1 | 1.9 J | < 4.0 U | 61 | < 4.0 U | **71** | **120** | < 4.0 U | 2.4 | < 4.0 U | < 4.0 U |
| | 10/18/2005 | 13 | 9.0 | 1.2 J | < 1.0 U | 29 | < 1.0 U | **95** | **140** | < 1.0 U | 1.0 J | 1.8 | < 3.3 U |
| | 9/21/2006 | 9.7 J | 7.0 J | < 22 U | < 22 U | **660** | < 22 U | **9.1 J** | **11 J** | < 22 U | 10 J | < 22 U | < 4.0 U |
| | 9/17/2007 | 0.59 J | 10 | < 1.0 U | < 1.0 U | 0.30 J | < 1.0 U | 1.5 | 0.46 J | < 1.0 U | 0.29 J | < 1.0 U | < 2.0 U |
| | 9/23/2008 | < 1.0 U | 13 | < 1.0 U | < 1.0 U | 0.68 J | < 1.0 U | 0.94 J | 3.0 | < 1.0 U | 0.52 J | **9.3** | < 2.0 U |
| | 11/17/2009 | < 1.0 U | 12 | < 1.0 U | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | 0.22 J | < 1.0 U | 0.37 J | < 1.0 U | < 2.0 U |
| | 4/7/2010 | < 1.0 U | 9.6 | < 1.0 U | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | < 2.0 U |
| | 9/27/2010 | < 1.0 U | 9.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | < 2.0 U |
| | 9/29/2011 | < 1.0 U | 10 | < 1.0 U | < 1.0 U | 5.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | **12** | < 2.0 U |
| | 9/6/2012 | < 1.0 U | 8.4 | < 1.0 U | < 1.0 U | 7.3 | < 1.0 U | < 1.0 U | 0.30 J | < 1.0 U | 0.84 J | **10** | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | 26 | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | 1.1 | **17** | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 7.6 | < 1.0 U | < 1.0 U | 37 | < 1.0 U | < 1.0 U | 0.81 J | < 1.0 U | 0.91 J | **15** | < 2.9 U |
| | 12/8/2015 | < 1.0 U | 3.1 | < 1.0 U | < 1.0 U | 37 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | 0.66 J | **6.4** | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-19S (continued) | 8/22/2016 | < 1.0 U | 3.4 | < 1.0 U | < 1.0 U | 44 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | 0.64 J | **4.6** | < 2.0 U |
| | 8/17/2017 | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | 39 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | 0.52 J | **4.0** | < 2.0 U |
| | 7/24/2018 | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | 31 | < 1.0 U | 0.37 J | 2.4 | < 1.0 U | 0.66 J | **8.8** | < 2.0 U |
| | 7/12/2019 | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 32 | < 1.0 U | 1.0 | 2.3 | < 1.0 U | 0.52 J | **3.6** | < 2.0 U |
| | 2/13/2020 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 32 | < 1.0 U | 2.6 | 3.2 | < 1.0 U | 0.41 J | **2.1** | < 2.0 U |
| | 7/31/2020 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 28 | < 1.0 U | 1.5 | 2.7 | < 1.0 U | < 1.0 U | **2.9** | < 2.0 U |
| | 10/7/2021 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 38 | < 1.0 U | 2.9 | 2.9 | < 1.0 U | 0.51 J | 1.7 | < 2.0 U |
| | 11/10/2022 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 31 | < 1.0 U | 4.7 | 3.7 | < 1.0 U | < 1.0 U | 0.98 J | < 2.0 U |
| | 9/15/2023 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 26 | < 1.0 U | **5.5** | 3.9 | < 1.0 U | < 1.0 U | 0.74 J | < 2.0 U |
| GM-21 | 9/22/1999 | 53 | 9.0 | 3.9 | < 1.0 U | 66 | < 1.0 U | < 1.0 U | **29** | < 1.0 U | 7.8 | < 1.0 U | < 1.0 U |
| | 9/22/2000 | 16 | 5.6 | 1.6 | < 1.0 U | 39 | < 1.0 U | < 1.0 U | **189** | < 1.0 U | 13 | < 1.0 U | < 1.0 U |
| | 11/13/2001 | 6.9 | 3.8 J | < 5.0 U | < 5.0 U | 39 | < 5.0 U | < 5.0 U | **160** | < 5.0 U | 15 | < 5.0 U | < 5.0 U |
| | 9/25/2002 | 31 | 5.0 J | 2.6 J | < 6.7 U | 43 | < 6.7 U | < 6.7 U | **230** | < 6.7 U | 5.1 | < 6.7 U | < 6.7 U |
| | 9/24/2003 | 31 | 6.9 J | 2.0 J | < 8.0 U | **100** | < 8.0 U | < 8.0 U | **200** | < 8.0 U | 2.9 J | < 8.0 U | < 8.0 U |
| | 9/14/2004 | 26 | 4.2 J | 3.1 J | < 9.1 U | 56 | < 9.1 U | < 9.1 U | **180** | < 9.1 U | 7.9 | < 9.1 U | < 9.1 U |
| | 10/17/2005 | 4.3 | 3.4 | < 1.0 U | < 1.0 U | 20 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | 22 | **13** | < 2.0 U |
| | 9/20/2006 | 12 | 8.6 | 0.19 J | < 1.0 U | 14 | < 1.0 U | < 1.0 U | **5.9** | < 1.0 U | 4.3 | **9.3** | < 2.0 U |
| | 9/26/2007 | 8.5 | 18 | <1.4 U | <1.4 U | 26 | <1.4 U | <1.4 U | 2.8 | <1.4 U | 2.5 | **12** | < 2.9 U |
| | 10/3/2008 | 8.7 | 15 | 0.33 J | < 1.0 U | 38 | < 1.0 U | 0.56 J | **18** | < 1.0 U | 4.7 | **19** | < 2.9 U |
| | 11/16/2009 | 2.4 | 22 | < 1.0 U | < 1.0 U | 7.8 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | 4.4 | **6.6** | < 2.0 U |
| | 9/28/2010 | 0.75 J | 20 | < 1.0 U | < 1.0 U | 3.9 | < 1.0 U | < 1.0 U | 3.2 | < 1.0 U | 3 | **3.6** | < 2.0 U |
| | 9/29/2011 | 1.0 | 16 | < 1.0 U | < 1.0 U | 9.9 | < 1.0 U | < 1.0 U | **19** | < 1.0 U | 1.9 | **6.2** | < 2.0 U |
| | 9/7/2012 | < 2.0 U | 18 | < 2.0 U | < 2.0 U | 8.5 | < 2.0 U | < 2.0 U | **14** | < 2.0 U | 1.7 J | **5.1** | < 4.0 U |
| | 9/26/2013 | < 1.0 U | 9.5 | < 1.0 U | < 1.0 U | 5.1 | < 1.0 U | < 1.0 U | **12** | < 1.0 U | 1.1 | **3.8** | < 2.0 U |
| | 10/9/2014 | < 1.0 U | 16 | < 1.0 U | < 1.0 U | 12 | < 1.0 U | < 1.0 U | **18** | < 1.0 U | 1.6 | **5.8** | < 2.0 U |
| | 12/11/2015 | < 2.0 U | 12 | < 2.0 U | < 2.0 U | 22 | < 2.0 U | < 2.0 U | **16** | < 2.0 U | 1.6 J | **8.9** | < 4.0 U |
| | 8/22/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/17/2017 | < 1.0 U | 11 | < 1.0 U | < 1.0 U | 19 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | 1.5 | **9.7** | < 2.0 U |
| | 7/25/2018 | < 1.0 U | 9.3 | < 1.0 U | < 1.0 U | 23 | < 1.0 U | < 1.0 U | 3.9 | < 1.0 U | 1.6 | **15** | < 2.0 U |
| | 7/12/2019 | < 1.0 U | 6.3 | < 1.0 U | < 1.0 U | 10 | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | 1.0 | **6.6** | < 2.0 U |
| | 7/31/2020 | < 1.0 U | 7.0 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | 1.3 | **8.0** | < 2.0 U |
| | 10/7/2021 | < 1.0 U | 8.4 | < 1.0 U | < 1.0 U | 9.8 | < 1.0 U | < 1.0 U | 0.98 J | < 1.0 U | 1.5 | **7.0** | < 2.0 U |
| | 11/10/2022 | < 1.0 U | 4.1 | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | 0.62 J | 1.4 | < 2.0 U |
| | 9/15/2023 | < 1.0 U | 5.4 | < 1.0 U | < 1.0 U | 4.8 | < 1.0 U | < 1.0 U | 0.55 J | < 1.0 U | 0.96 J | 2.0 | < 2.0 U |
| GM-22 | 9/1/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.6 | 4.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/21/2000 | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/13/2001 | 4.4 | 6.8 | 0.58J | < 1.0 U | 8.5 | < 1.0 U | 4.9 | **7.5** | < 1.0 U | 0.17 J | 0.60 J | < 1.0 U |
| | 9/25/2002 | 0.93 J | < 2.0 U | < 2.0 U | < 2.0 U | < 1.0 U | < 2.0 U | 2.3 | **7.6** | < 2.0 U | < 1.0 U | < 2.0 U | < 2.0 U |
| | 9/24/2003 | 1.2 | 1.0 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | 2.9 | **7.6** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/14/2004 | 1.7 | 2.1 | < 1.0 U | < 1.0 U | 0.9 | < 1.0 U | 2.9 | **10** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/17/2005 | 0.96 J | 1.0 | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | 3.6 | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/20/2006 | 0.47 J | 1.1 | < 1.0 U | < 1.0 U | 0.28 J | < 1.0 U | 3.2 | 3.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2007 | 0.66 J | 0.72 J | < 1.0 U | < 1.0 U | 0.24 J | < 1.0 U | 3.3 | 3.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/3/2008 | 0.73 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.7** | **5.7** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | 0.65 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.3 | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-23 | 9/2/1999 | 7.2 | 33 | **17** | 1.9 | **7530** | < 1.0 U | **6250** | **1460** | < 1.0 U | 55 | **2500** | 7.0 |
| | 9/20/2000 | 2.0 | 16 | 5.1 | < 1.0 U | **5620** | < 1.0 U | **3470** | **609** | < 1.0 U | 33 | **801** | < 1.0 U |
| | 11/12/2001 | < 4.0 U20 | < 4.0 U20 | < 4.0 U20 | < 4.0 U20 | **8400** | < 4.0 U20 | **15000** | **2200** | < 4.0 U20 | < 210 | **1200** | < 4.0 U20 |
| | 9/26/2002 | < 4.0 U0 | < 4.0 U0 | < 4.0 U0 | < 4.0 U0 | **7700** | < 4.0 U0 | **10000** | **1700** | < 4.0 U0 | < 200 | **540** | < 4.0 U0 |
| | 9/23/2003 | < 50 U0 U | < 50 U0 U | < 50 U0 U | < 50 U0 U | **5800** | < 50 U0 U | **12000** | **1600** | < 50 U0 U | < 250 U | **690** | < 50 U0 U |
| | 9/14/2004 | < 50 U0 U | < 50 U0 U | < 50 U0 U | < 50 U0 U | **4600** | < 50 U0 U | **6700** | **1100** | < 50 U0 U | < 250 U | **870** | < 50 U0 U |
| | 10/17/2005 | < 560 U | < 560 U | < 560 U | < 560 U | **19000** | < 560 U | **2300** | **490 J** | < 560 U | < 560 U | **2800** | < 100 U |
| | 9/28/2006 | < 330 U | < 330 U | < 330 U | < 330 U | **11000** | < 330 U | **370** | **95 J** | < 330 U | **270 J** | **4100** | < 670 U |
| | 9/27/2007 | < 200 U | < 200 U | < 200 U | < 200 U | **4700** | < 200 U | **280** | **82 J** | < 200 U | **130 J** | **2600** | < 4.0 U0 U |
| | 10/23/2008 | < 62 U | < 62 U | < 62 U | < 62 U | **2000** | < 62 U | **71** | < 62 U | < 62 U | 58 J | **2100** | < 1.0 U |
| | 11/17/2009 | < 20 U | 5.0 J | < 20 U | < 20 U | **1100** | < 20 U | **19 J** | **8.3 J** | < 20 U | 31 | **1100** | < 4.0 U |
| | 9/29/2010 | < 22 U | < 22 U | < 22 U | < 22 U | **490** | < 22 U | **50** | **17 J** | < 22 U | 16 J | **500** | < 4.0 U |
| | 9/30/2011 | < 20 U | < 20 U | < 20 U | < 20 U | **580** | < 20 U | **57** | **33** | < 20 U | 21 | **840** | < 4.0 U |
| | 9/7/2012 | < 25 U | < 25 U | < 25 U | < 25 U | **580** | < 25 U | **33** | **15 J** | < 25 U | 21 J | **390** | < 50 U |
| | 9/27/2013 | < 1.0 U | 2.6 | 1.7 | 0.28 J | **470** | < 1.0 U | **37** | **28** | < 1.0 U | 15 | **210** | < 2.0 U |
| | 10/10/2014 | < 1.0 U | 8.4 J | < 1.0 U | < 1.0 U | **210** | < 1.0 U | 3.6 J | 4.1 J | < 1.0 U | 20 | **220** | < 20 U |
| | 12/8/2015 | < 1.0 U | 15 | 0.47 J | 0.69 J | **100** | < 1.0 U | 0.58 J | 5.0 | < 1.0 U | 13 | **120** | < 2.0 U |
| | 8/22/2016 | < 2.0 U | 8.6 | 1.1 J | < 2.0 U | **530** | < 2.0 U | **8.0** | **7.6** | < 2.0 U | 18 | **280** | < 4.0 U |
| | 8/17/2017 | < 2.0 U | 5.4 | 1.4 J | < 2.0 U | **580** | < 2.0 U | **30** | **8.6** | < 2.0 U | 22 | **360** | < 4.0 U |
| | 7/26/2018 | < 1.0 U | 8 | 0.81 J | 0.47 J | **260** | < 1.0 U | **8.4** | 5.0 | 0.16 J | 16 | **210** | < 2.0 U |
| | 7/12/2019 | < 40 U | < 40 U | < 40 U | < 40 U | **550** | < 40 U | **22 J** | **15 J** | < 40 U | 16 J | **250** | < 80 U |
| | 7/31/2020 | < 2.5 U | 9.9 | < 2.5 U | < 2.5 U | **140** | < 2.5 U | 3.3 | **6.8** | < 2.5 U | 11 | **190** | < 5.0 U |
| GM-25 | 9/22/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/21/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| GM-27 | 9/1/1999 | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 21 | < 1.0 U | 1.7 | **121** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/20/2000 | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 14 | < 1.0 U | 1.2 | **112** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/13/2001 | < 3.3 U | 1.8 J | < 3.3 U | < 3.3 U | 13 | < 3.3 U | **6.8** | **110** | < 3.3 U | < 1.0 U | < 3.3 U | < 3.3 U |
| | 9/26/2002 | < 3.3 U | 1.7 J | < 3.3 U | < 3.3 U | 14 | < 3.3 U | < 3.3 U | **100** | < 3.3 U | < 1.0 U | < 3.3 U | < 3.3 U |
| | 9/23/2003 | < 5.0 U | 1.9 J | < 5.0 U | < 5.0 U | 12 | < 5.0 U | 2.1 J | **100** | < 5.0 U | < 2.5 U | < 5.0 U | < 5.0 U |
| | 9/15/2004 | < 3.3 U | 2.0 J | < 3.3 U | < 3.3 U | 13 | < 3.3 U | 1.8 J | **81** | < 3.3 U | < 1.0 U | < 3.3 U | < 3.3 U |
| | 10/17/2005 | < 2.5 U | 2.2 J | < 2.5 U | < 2.5 U | 14 | < 2.5 U | 0.94 J | **76** | < 2.5 U | 0.49 J | 0.82 J | < 5.0 U |
| | 9/28/2006 | < 2.5 U | 2.6 | < 2.5 U | < 2.5 U | 14 | < 2.5 U | 1.0 J | **80** | < 2.5 U | 1.0 J | < 2.5 U | < 5.0 U |
| | 9/27/2007 | < 2.0 U | 2.3 | < 2.0 U | < 2.0 U | 12 | < 2.0 U | 0.9 J | **70** | < 2.0 U | 0.41 J | < 2.0 U | < 4.0 U |
| | 10/23/2008 | < 1.0 U | 2 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.9 J | **57** | < 1.0 U | 0.51 J | 0.44 J | < 2.9 U |
| | 9/27/2013 | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | 12 | < 1.0 U | 1.8 | **42** | < 1.0 UB | 0.51 J | 0.18 J | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-27 | 7/12/2019 | < 1.0 U | 0.54 J | < 1.0 U | < 1.0 U | 9.0 | < 1.0 U | 0.59 J | **18** | < 1.0 U | 0.37 J | 0.31 J | < 2.0 U |
| (continued) | 7/31/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 7.7 | < 1.0 U | 0.85 J | **22** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-28 | 9/1/1999 | 18 | 3.3 | < 1.0 U | < 1.0 U | **175** | < 1.0 U | **316** | **768** | < 1.0 U | 9.2 | **3.2** | < 1.0 U |
| | 9/21/2000 | 5.0 | 9.9 | < 1.0 U | < 1.0 U | 37 | < 1.0 U | 2.3 | 1.6 | < 1.0 U | 22 | **12** | < 1.0 U |
| | 11/15/2001 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 11 | < 1.0 U | < 1.0 U |
| | 9/24/2002 | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 0.86 J | < 1.0 U | 11 | < 1.0 U | < 1.0 U |
| | 10/1/2003 | < 1.0 U | 3.3 | < 1.0 U | < 1.0 U | 0.58 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | 4.0 | 0.53 J | < 1.0 U |
| | 9/15/2004 | < 1.0 U | 3.3 | < 1.0 U | < 1.0 U | 0.41 J | < 1.0 U | 0.88 J | 1.4 | < 1.0 U | 1.2 | 0.44 J | < 1.0 U |
| | 10/18/2005 | < 1.0 U | 4.0 | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | < 1.0 U | 0.66 J | < 1.0 U | 0.63 J | 1.1 | < 2.0 U |
| | 9/27/2006 | < 1.0 U | 4.2 | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | 0.43 J | < 1.0 U | 0.66 J | 0.42 J | < 2.0 U |
| | 9/20/2007 | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | 0.72 J | < 1.0 U | < 1.0 U | 0.51 J | < 1.0 U | 0.58 J | 1.2 | < 2.0 U |
| | 10/22/2008 | < 5.0 U | 2.2 J | < 5.0 U | < 5.0 U | 6.9 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | 1.3 J | **6.5** | < 1.0 U |
| | 11/16/2009 | < 1.0 U | 3.6 | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | 0.58 J | < 1.0 U | 1.7 | **3.3** | < 2.0 U |
| | 9/28/2010 | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | **2.2** | < 2.0 U |
| | 10/5/2011 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 0.72 J | < 1.0 U | 0.63 J | 0.41 J | < 1.0 U | 0.69 J | 0.57 J | < 2.0 U |
| GM-28R | 12/28/2015 | < 1.0 U | 0.55 J | < 1.0 U | < 1.0 U | 5.6 | < 1.0 U | **49** | **24** | < 1.0 U | 0.38 J | 0.99 J | < 2.0 U |
| | 8/22/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | 1.3 | 0.29 J | < 1.0 U | 0.31 J | < 1.0 U | < 2.0 U |
| | 8/17/2017 | < 1.0 U | 0.25 J | < 1.0 U | < 1.0 U | 6.0 | < 1.0 U | 4.6 | 0.33 J | < 1.0 U | < 1.0 U | 0.72 J | < 2.0 U |
| | 7/25/2018 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | 3.5 | 0.30 J | < 1.0 U | < 1.0 U | 0.70 J | < 2.0 U |
| | 7/12/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **13** | 0.35 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/31/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.91 J | < 1.0 U | 0.92 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-29 | 9/1/1999 | 38 | 4.3 | 1.3 | < 1.0 U | **320** | < 1.0 U | < 20 U | **878** | < 1.0 U | 11 | **3.8** | < 1.0 U |
| | 9/21/2000 | 25 | 17 | 3.1 | < 1.0 U | **2871** | < 1.0 U | **20** | **289** | 2.2 | 14 | **788** | < 1.0 U |
| | 11/13/2001 | < 50 U | < 50 U | < 50 U | < 50 U | **1800** | 21 J | **17 J** | **270** | < 50 U | 26 | **230** | 52 |
| | 9/25/2002 | 16 J | < 4.0 U | < 4.0 U | < 4.0 U | **1300** | < 4.0 U | **18 J** | **310** | < 4.0 U | 21 | **140** | < 4.0 U |
| | 9/24/2003 | 18 J | < 33 U | < 33 U | < 33 U | **1200** | < 33 U | **18 J** | **390** | < 33 U | 20 | **150** | < 33 U |
| | 9/15/2004 | 21 J | < 50 U | < 50 U | < 50 U | **1200** | < 50 U | **20 J** | **440** | < 50 U | 21 J | **230** | < 50 U |
| | 10/17/2005 | 19 J | 18 J | < 50 U | < 50 U | **1600** | < 50 U | **15 J** | **390** | < 50 U | 27 J | **490** | < 1.0 U |
| | 9/28/2006 | 17 J | 15 J | < 33 U | < 33 U | **1300** | < 33 U | **15 J** | **310** | < 33 U | 20 J | **210** | < 67 U |
| | 9/26/2007 | 15 J | 15 J | < 50 U | < 50 U | **1200** | < 50 U | **18 J** | **350** | < 50 U | 19 J | **290** | < 1.0 U |
| | 10/6/2008 | 12 J | 11 J | < 33 U | < 33 U | **900** | < 33 U | **17 J** | **300** | < 33 U | 16 J | **150** | < 67 U |
| | 11/17/2009 | 18 | 12 | < 1.0 U | < 1.0 U | **600** | < 1.0 U | **21 J** | **370** | < 1.0 U | 20 | **70** | < 20 U |
| | 9/29/2010 | 11 J | 11 J | < 20 U | < 20 U | **660** | < 20 U | **17 J** | **330** | < 20 U | 19 J | **59** | < 4.0 U |
| | 9/30/2011 | 11 J | 8.5 J | < 1.0 U | < 1.0 U | **470** | < 1.0 U | **13** | **320** | < 1.0 U | 17 | **52** | < 25 U |
| | 9/26/2012 | 10 J | 8.2 J | < 20 U | < 20 U | **520** | < 20 U | **14 J** | **310** | < 20 U | 15 J | **45** | < 4.0 U |
| | 9/27/2013 | 15 | 12 | 1.7 | 0.20 J | **530** | < 1.0 U | **15** | **280** | < 1.0 U | 20 | **60** | < 2.0 U |
| | 10/9/2014 | 9.1 J | 9.5 J | < 1.0 U | < 1.0 U | **480** | < 1.0 U | **12 J** | **260** | < 1.0 U | 15 | **40** | < 29 U |
| | 12/8/2015 | 9.9 | 10 | 1.2 J | < 1.7 U | **440** | < 1.7 U | **11** | **270** | < 1.7 U | 15 | **48** | < 3.3 U |
| | 8/22/2016 | 10 | 10 | < 2.0 U | < 2.0 U | **470** | < 2.0 U | **13** | **360** | < 2.0 U | 14 | **42** | < 4.0 U |
| | 8/17/2017 | 9.6 | 13 | 1.0 J | < 2.0 U | **430** | < 2.0 U | **11** | **280** | < 2.0 U | 16 | **53** | < 4.0 U |
| | 7/25/2018 | 8.1 | 10 | < 2.0 U | < 2.0 U | **420** | < 2.0 U | **13** | **310** | < 2.0 U | 13 | **41** | < 4.0 U |
| | 7/12/2019 | 8.4 J | 9.2 J | < 13 U | < 13 U | **380** | < 13 U | **11 J** | **300** | < 13 U | 13 | **38** | < 27 U |
| | 7/31/2020 | 7.8 | 9.5 | < 1.3 U | < 1.3 U | **380** | < 1.3 U | **11** | **290** | < 1.3 U | 25 | **42** | < 2.7 U |
| GM-30 | 9/2/1999 | < 1.0 U | 54 J | < 1.0 U | < 1.0 U | 7.5 J | **7030 J** | **9.5 J** | < 1.0 U | **6950 J** | < 1.0 U | < 1.0 U | **23300 J** |
| | 9/20/2000 | < 1.0 U | 50.6 | < 1.0 U | 2.7 | < 1.0 U | **2290** | < 1.0 U | < 1.0 U | 98.9 | < 1.0 U | < 1.0 U | 6770 |
| | 11/13/2001 | < 25 | 31 | < 25 | < 25 | < 1.0 U2 | **840** | < 25 | **12 J** | 5.0 J | < 1.0 U2 | < 25 | 2000 |
| | 9/27/2002 | < 33 | 34 | < 33 | < 33 | < 1.0 U7 | 350 | < 33 | < 33 | < 33 | < 1.0 U7 | < 33 | 1400 |
| | 9/23/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 62 U | **1000** | < 1.0 U | < 1.0 U | 240 | < 62 U | < 1.0 U | 7000 |
| | 9/14/2004 | < 4.0 U | 33 J | < 4.0 U | < 4.0 U | < 20 U | 530 | < 4.0 U | < 4.0 U | < 4.0 U | < 20 U | < 4.0 U | 3000 |
| | 10/17/2005 | < 50 U | 23 J | < 50 U | < 50 U | < 50 U | 620 | < 50 U | < 50 U | < 50 U | < 50 U | < 50 U | 3800 |
| | 9/20/2006 | < 33 U | 25 J | < 33 U | < 33 U | < 33 U | 570 | < 33 U | < 33 U | 5.8 J | < 33 U | < 33 U | 2500 |
| | 9/26/2007 | < 1.0 U | 16 J | < 1.0 U | < 1.0 U | < 1.0 U | 380 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1300 |
| | 10/6/2008 | < 1.0 U | 11 | < 1.0 U | < 1.0 U | < 1.0 U | 300 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 670 |
| | 9/27/2013 | < 1.0 U | 5.3 | < 1.0 U | 4.0 | < 1.0 U | 20 | 0.23 J | 0.28 J | 1.1 | 0.63 J | 0.34 J | 7.2 |
| | 10/9/2014 | < 1.0 U | 3.2 | < 1.0 U | 2.3 | 0.29 J | 54 | < 1.0 U | < 1.0 U | 0.71 J | 0.51 J | < 1.0 U | 12 |
| | 12/11/2015 | < 2.0 U | 3 | < 2.0 U | 2.9 | < 2.0 U | 260 | < 2.0 U | < 2.0 U | 0.87 J | < 2.0 U | < 2.0 U | 14 |
| | 8/26/2016 | < 1.0 U | 7.6 | < 1.0 U | **8.9** | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | 1.1 | 6.5 | 0.29 J | 9.6 |
| GM-31 | 9/1/1999 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 7.8 | < 1.0 U | 1.3 | **27** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/21/2000 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 40 | < 1.0 U | < 1.0 U | **8.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/15/2001 | < 4.0 U | 3.1 J | < 4.0 U | < 4.0 U | **120** | < 4.0 U | < 4.0 U | **11** | < 4.0 U | 1.8J | **7.4** | < 4.0 U |
| | 9/24/2002 | < 6.0 U | 5.9 J | < 6.0 U | < 6.0 U | **200** | < 6.0 U | < 6.0 U | **10** | < 6.0 U | 3.5 | **19** | < 6.0 U |
| | 10/1/2003 | < 5.0 U | 6 | < 5.0 U | < 5.0 U | **170** | < 5.0 U | < 5.0 U | **28** | < 5.0 U | 3.5 | **10** | < 5.0 U |
| | 9/15/2004 | 1.4 J | 4 J | < 5.0 U | < 5.0 U | **120** | < 5.0 U | 2.5 J | **29** | < 5.0 U | 2.7 | **2.4 J** | < 5.0 U |
| | 10/18/2005 | 3.4 | 6.2 | 0.42 J | < 2.0 U | **120** | < 2.0 U | < 2.0 U | **67** | < 2.0 U | 3.7 | **3.1** | < 4.0 U |
| | 9/27/2006 | 2.3 J | 5.1 | < 4.0 U | < 4.0 U | **110** | < 4.0 U | < 4.0 U | **65** | < 4.0 U | 2.9 J | 1.2 J | < 8.0 U |
| | 9/20/2007 | 3.7 | 4.8 | < 3.3 U | < 3.3 U | **100** | < 3.3 U | < 3.3 U | **90** | < 3.3 U | 2.8 J | 1.1 J | < 6.7 U |
| | 10/23/2008 | 2.9 | 3.2 | < 2.5 U | < 2.5 U | **76** | < 2.5 U | < 2.5 U | **78** | < 2.5 U | 3 | 0.9 J | < 5.0 U |
| | 9/27/2013 | 9.8 | 2.3 | < 1.0 U | < 1.0 U | 21 | < 1.0 U | 0.43 J | **120** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 10/9/2014 | 3.8 | 2.8 | < 2.0 U | < 2.0 U | 54 | < 2.0 U | 0.48 J | **79** | < 2.0 U | 1.6 J | < 2.0 U | < 4.0 U |
| | 12/8/2015 | 2.9 | 2.5 | < 1.0 U | < 1.0 U | 48 | < 1.0 U | < 1.0 U | **75** | < 1.0 U | 1.5 | 0.64 J | < 2.0 U |
| GM-32 | 9/22/1999 | < 1.0 U | 3.3 | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | 1.2 | 3.2 | 1.0 | 4.2 | **3.0** | < 1.0 U |
| | 9/25/2000 | < 1.0 U | 36 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 10 | 20 | < 1.0 U | < 1.0 U |
| | 11/12/2001 | < 5.0 U | 6.2 | < 5.0 U | 4.3 J | < 2.5 | 0.79 J | < 5.0 U | < 5.0 U | 12 | 2.9 | 1.1 J | 3.0 J |
| | 9/20/2002 | < 1.0 U | 9.7 J | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U |
| | 10/1/2003 | < 2.0 U | 5.5 | < 2.0 U | 1.5 J | < 1.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 1.0 | < 2.0 U | < 2.0 U |
| | 9/14/2004 | < 1.0 U | 3.0 J | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 5.0 U | < 1.0 U | < 1.0 U |
| | 10/19/2005 | < 1.0 U | 4.9 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 20 U |
| | 9/19/2006 | < 1.0 U | 3.7 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 20 U |
| | 9/18/2007 | < 5.0 U | 4.3 J | < 5.0 U | 1.6 J | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | 1.0 J | < 5.0 U | 3.4 J |
| | 9/23/2008 | < 1.0 U | 4.0 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 20 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-32 | 7/11/2019 | < 1.0 U | 0.45 J | < 1.0 U | < 1.0 U | 0.34 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.26 J | < 2.0 U |
| (continued) | 7/31/2020 | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | 0.86 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/10/2022 | < 1.0 U | 0.51 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/13/2023 | < 1.0 U | 0.70 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-33 | 9/25/2003 | 21 | 8.4 | 1.0 J | < 2.5 U | 19 | < 2.5 U | **37** | **75** | < 2.5 U | 0.72 J | < 2.5 U | < 2.5 U |
| | 9/13/2004 | 17 | 5.4 | 1.1 J | < 2.0 U | 9.5 | < 2.0 U | **37** | **55** | < 2.0 U | 0.45 J | < 2.0 U | < 2.0 U |
| | 10/18/2005 | 18 | 6.4 | 0.69 J | < 1.0 U | 7.4 | < 1.0 U | **50** | **71** | < 1.0 U | 0.36 J | 1.0 | < 2.0 U |
| | 9/21/2006 | 18 | 4.5 | 1.1 J | < 1.0 U | 6.9 | < 1.0 U | **37** | **64** | < 1.0 U | 0.44 J | < 1.0 U | < 3.3 U |
| | 9/24/2007 | 15 | 4.9 | 0.68 J | < 1.0 U | 5.5 | < 1.0 U | **32** | **49** | < 1.0 U | 0.34 J | < 1.0 U | < 3.3 U |
| | 10/23/2008 | 8.4 | 2.9 | 0.58 J | < 1.0 U | 4.1 | < 1.0 U | **38** | **36** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.9 U |
| | 9/26/2013 | 3.4 | 1.1 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | **28** | **14** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/24/2015 | 0.61 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.44 J | < 1.0 U | **13** | **5.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-34 | 8/7/2002 | 4.8 | 2.7 | < 1.0 U | < 1.0 U | 3.0 | < 1.0 U | **20** | **11** | < 1.0 U | 0.4 J | < 1.0 U | < 1.0 U |
| GM-35 | 9/25/2003 | 17 | 46 | 4.0 J | < 8.0 U | **300** | < 8.0 U | **21** | **270** | < 8.0 U | 12 | **59** | < 8.0 U |
| | 9/13/2004 | 17 | 36 | 4.1 J | < 1.0 U | **270** | < 1.0 U | **21** | **230** | < 1.0 U | 9.1 | **50** | < 1.0 U |
| | 10/18/2005 | 12 | 36 | 1.8 J | < 5.0 U | **190** | < 5.0 U | **29** | **240** | < 5.0 U | 9.3 | **23** | < 1.0 U |
| | 9/22/2006 | 5.5 J | 26 J | < 5.0 UJ | < 5.0 UJ | **160 J** | < 5.0 UJ | **14 J** | **130 J** | < 5.0 UJ | 11 J | **13 J** | < 1.0 UJ |
| | 9/24/2007 | 5.8 J | 26 | < 1.0 U | < 1.0 U | **140** | < 1.0 U | **22** | **110** | < 1.0 U | 8 J | **12** | < 20 U |
| | 9/29/2008 | 4.6 J | 20 | < 1.0 U | < 1.0 U | **92** | < 1.0 U | **20** | **88** | < 1.0 U | 9.4 J | **7.9 J** | < 20 U |
| | 11/13/2009 | 4.7 | 17 | 1.0 J | < 3.3 U | **74** | < 3.3 U | **33** | **120** | < 3.3 U | 8.2 | **4.6** | < 6.7 U |
| | 9/27/2010 | 4.8 | 19 | 0.97 J | < 4.0 U | **73** | < 4.0 U | **37** | **120** | < 4.0 U | 8.9 | **4.3** | < 8.0 U |
| | 9/30/2011 | 2.6 J | 20 | 0.64 J | < 3.3 U | 66 | < 3.3 U | **17** | **59** | < 3.3 U | 11 | **7.7** | < 6.7 U |
| | 9/6/2012 | < 20 U | 27 | < 20 U | < 20 U | **84** | < 20 U | < 20 U | **9.9 J** | < 20 U | 17 J | **14 J** | < 4.0 U |
| | 9/26/2013 | < 50 U | 30 J | < 50 U | < 50 U | 69 | < 50 U | < 50 U | **18 J** | < 50 U | 18 J | **11 J** | < 1.0 U |
| | 10/8/2014 | < 25 U | 22 J | < 25 U | < 25 U | 57 | < 25 U | **6.0 J** | **28** | < 25 U | 14 J | < 25 U | < 50 U |
| | 11/4/2015 | 4 | 34 | 3.7 | 0.52 J | **300** | < 1.0 U | **47** | **200** | < 1.0 U | 19 | **14** | < 2.0 U |
| | 8/23/2016 | <50 U | 19 J | <50 U | <50 U | **120** | <50 U | **27 J** | **120** | <50 U | <50 U | <50 U | <100 U |
| | 7/30/2020 | < 20 U | 19 J | < 20 U | < 20 U | **92 J** | < 20 U | **13 J** | **150** | < 20 U | 9.0 J | < 20 U | < 40 U |
| | 10/8/2021 | < 20 U | 15 J | < 20 U | < 20 U | **78** | < 20 U | **18 J** | **210** | < 20 U | < 20 U | < 20 U | < 40 U |
| GM-36 | 8/5/2002 | 5.5 | 21 | < 2.0 U | < 2.0 U | 55 | < 2.0 U | **54** | **50** | < 2.0 U | 1.6 J | < 2.0 U | < 2.0 U |
| | 7/30/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | 0.82 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **17** | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-37 | 8/6/2002 | 17 | 7.1 | 0.98 J | < 2.5 U | 41 | < 2.5 U | **58** | **84** | < 2.5 U | 1.6 | < 2.5 U | < 2.5 U |
| | 8/24/2015 | 2.0 | 0.65 J | < 1.0 U | < 1.0 U | 5.9 | < 1.0 U | **24** | **48** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/30/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **7.7** | 0.89 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **13** | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-38 | 8/6/2002 | 6 | 6.5 | < 2.0 U | < 2.0 U | 22 | < 2.0 U | **50** | **25** | < 2.0 U | 1 | < 2.0 U | < 2.0 U |
| | 7/30/2020 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 J | < 1.0 U | **20** | 3.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2021 | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | **23** | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-43 | 8/19/2004 | < 9.1 U | 6.9 J | < 9.1 U | < 9.1 U | **210** | < 9.1 U | **16** | **100** | < 9.1 U | 8.7 | **2.8 J** | < 9.1 U |
| | 9/22/2006 | < 5.0 UJ | 3.7 J | < 5.0 UJ | < 5.0 UJ | **120 J** | < 5.0 UJ | **21 J** | **98 J** | < 5.0 UJ | 5.7 J | < 5.0 UJ | < 1.0 UJ |
| | 11/17/2009 | 2.5 | 5.7 | 0.74 J | < 2.5 U | **150** | <2.5 U | **28 J** | **180** | <2.5 U | 6.2 | 1.0 J | <5.0 U |
| | 9/24/2010 | < 8.0 U | 6.8 J | < 8.0 U | < 8.0 U | **220** | < 8.0 U | **26** | **170** | < 8.0 U | 8.1 | < 8.0 U | < 1.0 U |
| | 9/30/2011 | < 4.0 U | 4.2 | 1.0 J | < 4.0 U | **130** | < 4.0 U | **22** | **180** | < 4.0 U | 5.3 | 1.0 J | < 8.0 U |
| | 9/6/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **79** | < 1.0 U | **28** | **230** | < 1.0 U | 4.1 J | < 1.0 U | < 20 U |
| | 9/26/2013 | 1.0 | 2.0 | < 1.0 U | < 1.0 U | 32 | < 1.0 U | **22** | **170** | < 1.0 U | 3.7 | 0.21 J | < 2.0 U |
| | 10/8/2014 | 1.8 J | < 5.7 U | < 5.7 U | < 5.7 U | 25 | < 5.7 U | **35** | **220** | < 5.7 U | 1.5 J | < 5.7 U | < 1.0 U |
| | 11/5/2015 | 1.4 | 0.63 J | < 1.0 U | < 1.0 U | 14 | < 1.0 U | **42** | **270** | < 1.0 U | 0.89 J | < 1.0 U | < 2.0 U |
| | 8/23/2016 | 1.6 J | 0.72 J | < 2.0 U | < 2.0 U | 11 | < 2.0 U | **41** | **260** | < 2.0 U | 0.83 J | < 2.0 U | < 4.0 U |
| GM-44 | 8/19/2004 | 4 J | 3.3 J | < 6.0 U | < 6.0 U | **130** | < 6.0 U | **57** | **140** | < 6.0 U | 4.4 | < 6.0 U | < 6.0 U |
| | 4/9/2010 | 1.8 J | 2.5 J | 0.70 J | < 3.3 U | 48 | < 3.3 U | **70** | **110** | < 3.3 U | 4.4 | < 3.3 U | < 6.7 U |
| | 10/8/2014 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | 16 | < 6.7 U | **100** | **180** | < 6.7 U | < 6.7 U | < 6.7 U | < 1.0 U |
| | 11/5/2015 | 1.5 | 0.94 J | < 1.0 U | < 1.0 U | 18 | < 1.0 U | **110** | **180** | < 1.0 U | 0.81 J | < 1.0 U | < 2.0 U |
| GM-45 | 8/19/2004 | 5.8 J | 8.5 J | < 9.1 U | < 9.1 U | **79** | < 9.1 U | **220** | **220** | < 9.1 U | 3.5 J | < 9.1 U | < 9.1 U |
| | 9/22/2006 | 3.5 J | 3.1 J | < 8.0 UJ | < 8.0 UJ | 54 J | < 8.0 UJ | **230 J** | **230 J** | < 8.0 UJ | 2.7 J | < 8.0 UJ | < 1.0 UJ |
| | 4/9/2010 | 2.7 J | 2.5 J | < 5.7 U | < 5.7 U | 36 | < 5.7 U | **200** | **180** | < 5.7 U | 3.3 J | < 5.7 U | < 1.0 U |
| | 10/8/2014 | 3.2 J | 2.2 J | < 4.0 U | < 4.0 U | 37 | < 4.0 U | **150** | **140** | < 4.0 U | 2.0 J | < 4.0 U | < 8.0 U |
| | 11/4/2015 | 6.5 | 3.3 | < 1.0 U | < 1.0 U | 36 | < 1.0 U | **190** | **180** | < 1.0 U | 2.7 | 0.50 J | < 2.0 U |
| GM-46 | 3/2/2006 | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | 6.8 | < 1.0 U | < 1.0 U | **22** | < 1.0 U | 0.35 J | 1.9 | < 2.0 U |
| | 11/30/2006 | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U | 5.2 | < 1.0 U | 0.67 J | 1.5 | < 1.0 U | < 1.0 U | 1.5 | < 2.0 U |
| | 10/9/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.30 J | < 1.0 U | 0.46 J | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.41 J | < 1.0 U | 0.47 J | 0.30 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-53 | 9/14/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-59 | 9/15/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.0 J | < 1.0 U | **310** | **94** | < 1.0 U | < 1.0 U | < 1.0 U | < 29 U |
| | 10/3/2008 | < 33 U | < 33 U | < 33 U | < 33 U | 41 | < 33 U | **750** | **750** | < 33 U | < 33 U | < 33 U | < 67 U |
| | 11/17/2009 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | 3.3 J | < 6.7 U | **500 J** | **170** | < 6.7 U | < 6.7 U | < 6.7 U | < 1.0 U |
| | 4/8/2010 | < 8.0 U | < 8.0 U | < 8.0 U | < 8.0 U | 2.9 J | < 8.0 U | **280** | **69** | < 8.0 U | < 8.0 U | < 8.0 U | < 1.0 U |
| | 9/29/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 5.7 J | < 1.0 U | **520** | **350** | < 1.0 U | < 1.0 U | < 1.0 U | < 31 U |
| | 9/30/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 6.4 J | < 1.0 U | **520** | **510** | < 1.0 U | < 1.0 U | < 1.0 U | < 25 U |
| | 9/7/2012 | < 50 U | < 50 U | < 50 U | < 50 U | 16 J | < 50 U | **800** | **710** | < 50 U | < 50 U | < 50 U | < 1.0 U |
| | 9/27/2013 | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | 11 | < 1.0 U | **1000** | **1100** | < 1.0 U | 0.56 J | < 1.0 U | < 2.0 U |
| | 10/10/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 6.7 J | < 1.0 U | **420** | **110** | < 1.0 U | < 1.0 U | < 1.0 U | < 27 U |
| | 12/8/2015 | 0.48 J | < 1.0 U | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | **270** | **97** | < 1.0 U | 0.34 J | < 1.0 U | < 2.0 U |
| | 8/23/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 2.6 | < 2.0 U | **280** | **170** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| GM-60 | 9/15/2006 | < 25 U | < 25 U | < 25 U | < 25 U | **220** | < 25 U | **510** | **570** | < 25 U | < 25 U | < 25 U | < 50 U |
| | 10/3/2008 | < 25 U | < 25 U | < 25 U | < 25 U | **360** | < 25 U | **900** | **920** | < 25 U | < 25 U | < 25 U | < 50 U |
| | 11/17/2009 | < 20 U | < 20 U | < 20 U | < 20 U | **160** | < 20 U | **1100 J** | **1400** | < 20 U | < 20 U | < 20 U | < 4.0 U |
| | 4/8/2010 | < 22 U | < 22 U | < 22 U | < 22 U | 17 J | < 22 U | **820** | **740** | < 22 U | < 22 U | < 22 U | < 4.0 U |
| | 9/29/2010 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **940** | < 4.0 U | **970** | **1300** | < 4.0 U | 10 J | **18 J** | < 8.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-60 | 9/30/2011 | < 20 U | < 20 U | < 20 U | < 20 U | **370** | < 20 U | **620** | **810** | < 20 U | 3.8 J | **11 J** | < 4.0 U |
| (continued) | 9/7/2012 | < 59 U | < 59 U | < 59 U | < 59 U | **480** | < 59 U | **610** | **980** | < 59 U | < 59 U | < 59 U | < 1.0 U |
| | 9/27/2013 | 1.4 | 1.3 | 1.5 | < 1.0 U | **400** | < 1.0 U | **670** | **1100** | < 1.0 U | 4.2 | **2.1** | < 2.0 U |
| | 10/9/2014 | < 67 U | < 67 U | < 67 U | < 67 U | **96** | < 67 U | **860** | **1400** | < 67 U | < 67 U | < 67 U | < 1.0 U |
| | 11/5/2015 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | 16 | < 4.0 U | **770** | **910** | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 8/23/2016 | 1.1 J | 0.69 J | < 2.0 U | < 2.0 U | 12 | < 2.0 U | **530** | **700** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| GM-66 | 5/2/2007 | < 2.9 U | 8.3 | < 2.9 U | < 2.9 U | **84** | < 2.9 U | < 2.9 U | **31** | < 2.9 U | 3.3 | **4.1** | < 5.7 U |
| | 10/8/2014 | < 1.0 U | 12 | < 1.0 U | < 1.0 U | **280** | < 1.0 U | < 1.0 U | **110** | < 1.0 U | 11 | **3.0 J** | < 20 U |
| | 12/8/2015 | < 1.0 U | 12 | 2.5 | < 1.0 U | **280** | < 1.0 U | < 1.0 U | **110** | < 1.0 U | 11 | **3.0** | < 2.0 U |
| GM-67S | 5/3/2007 | < 5.7 U | 2.8 J | < 5.7 U | < 5.7 U | 5.2 J | < 5.7 U | 1.1 J | **140** | < 5.7 U | < 5.7 U | < 5.7 U | < 1.0 U |
| | 10/10/2014 | < 5.0 U | 1.6 J | < 5.0 U | < 5.0 U | 2.3 J | < 5.0 U | 1.1 J | **140** | < 5.0 U | < 5.0 U | < 5.0 U | < 1.0 U |
| | 11/4/2015 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | 1.6 | **130** | < 1.0 U | 0.34 J | < 1.0 U | < 2.0 UJ |
| GM-68S | 5/4/2007 | 0.62 J | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | **28** | **78** | < 2.5 U | < 2.5 U | < 2.5 U | < 5.0 U |
| GM-71 | 5/3/2007 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **62** | **11** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/9/2014 | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.21 J | < 1.0 U | **19** | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | 0.51 J | 0.35 J | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | **19** | **20** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-72 | 5/3/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **53** | 0.66 J | < 1.0 U | < 1.0 U | < 1.0 U | < 3.3 U |
| | 10/9/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-74S | 9/27/2007 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **140** | **83** | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 4/9/2010 | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | **200** | **44** | < 5.7 U | < 5.7 U | < 5.7 U | < 1.0 U |
| | 8/23/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **69** | **14 K** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| GM-75S | 9/26/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **490** | **210** | < 1.0 U | < 1.0 U | < 1.0 U | < 29 U |
| | 10/6/2008 | < 20 U | < 20 U | < 20 U | < 20 U | < 20 U | < 20 U | **690** | **250** | < 20 U | < 20 U | < 20 U | < 4.0 U |
| | 11/16/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.9 J | < 1.0 U | **640** | **260** | < 1.0 U | < 1.0 U | < 1.0 U | < 20 U |
| | 9/29/2010 | < 29 U | < 29 U | < 29 U | < 29 U | 14 J | < 29 U | **650** | **890** | < 29 U | < 29 U | < 29 U | < 57 U |
| | 9/30/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.4 J | < 1.0 U | **430** | **720** | < 1.0 U | < 1.0 U | < 1.0 U | < 33 U |
| | 9/7/2012 | < 29 U | < 29 U | < 29 U | < 29 U | < 29 U | < 29 U | **420** | **250** | < 29 U | < 29 U | < 29 U | < 57 U |
| | 9/27/2013 | 1.8 | 0.53 J | < 1.0 U | < 1.0 U | 4.5 | < 1.0 U | **480** | **350** | < 1.0 U | 0.29 J | < 1.0 U | < 2.0 U |
| | 10/9/2014 | < 20 U | < 20 U | < 20 U | < 20 U | < 20 U | < 20 U | **460** | **170** | < 20 U | < 20 U | < 20 U | < 4.0 U |
| | 12/11/2015 | 0.58 J | < 1.3 U | < 1.3 U | < 1.3 U | < 1.3 U | < 1.3 U | **420** | **68** | < 1.3 U | < 1.3 U | < 1.3 U | < 2.5 U |
| | 8/24/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **520** | **68** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| GM-76S | 9/23/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/9/2014 | < 1.0 U | < 1.0 U | < 1.0 U | 0.39 J | < 1.0 U | < 1.0 U | 1.5 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-83S | 2/26/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | < 1.0 U | < 1.0 U | 0.18 J | 0.3 J | < 1.0 U | < 2.0 U |
| | 9/7/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 0.19 J | 0.45 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| HR-1 | 9/16/1999 | 1.6 | 2.4 | < 1.0 U | < 1.0 U | 5.8 | < 1.0 U | **44** | **56** | < 1.0 U | 3.9 | < 1.0 U | < 1.0 U |
| | 9/25/2000 | 1.3 | 2.4 | < 1.0 U | < 1.0 U | 8.5 | < 1.0 U | **33** | **56** | < 1.0 U | 3.2 | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 2.2 J | 2.8 J | < 3.3 U | < 3.3 U | 9.9 | < 3.3 U | **36** | **86 B** | < 3.3 U | 2.8 | < 3.3 U | < 3.3 U |
| | 9/23/2002 | < 2.0 U | 2.8 | < 2.0 U | < 2.0 U | 4.5 | < 2.0 U | **33** | **33** | < 2.0 U | 3.2 | < 2.0 U | < 2.0 U |
| | 9/18/2003 | 1 J | 2.6 | < 2.0 U | < 2.0 U | 2.3 | < 2.0 U | **27** | **56** | < 2.0 U | 3.2 | < 2.0 U | < 2.0 U |
| | 9/13/2004 | 0.56 J | 2.5 | < 1.0 U | < 1.0 U | 24 | < 1.0 U | **23** | **30** | < 1.0 U | 2.3 | 0.55 J | < 1.0 U |
| | 10/18/2005 | 1.2 | 2.7 | < 1.0 U | < 1.0 U | 19 | < 1.0 U | **28** | **43** | < 1.0 U | 2.3 | 1.1 | < 2.0 U |
| | 9/25/2006 | 0.57 J | 1.7 | < 1.0 U | < 1.0 U | 14 | < 1.0 U | < 1.0 U | **50** | < 1.0 U | 1.4 J | < 1.0 U | < 3.3 U |
| | 9/24/2007 | 0.45 J | 2.2 | 0.21J | < 1.0 U | 9.5 | < 1.0 U | **20** | **40** | < 1.0 U | 1.9 | < 1.0 U | < 2.0 U |
| | 9/29/2008 | 0.77 J | 1.8 J | < 2.5 U | < 2.5 U | 5 | < 2.5 U | **27** | **70** | < 2.5 U | 2 J | < 2.5 U | < 5.0 U |
| | 9/26/2013 | 0.99 J | 1.2 | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | **30** | **100** | < 1.0 U | 0.90 J | < 1.0 U | < 2.0 U |
| | 10/8/2014 | 1.3 J | 1.4 J | < 5.0 U | < 5.0 U | 20 | < 5.0 U | **36** | **120** | < 5.0 U | 1.5 J | < 5.0 U | < 1.0 U |
| | 11/5/2015 | 1.2 | 0.51 J | < 1.0 U | < 1.0 U | 6.6 | < 1.0 U | **76** | **210** | < 1.0 U | 0.43 J | < 1.0 U | < 2.0 U |
| | 8/23/2016 | 1.1 J | < 2.0 U | < 2.0 U | < 2.0 U | 3.3 | < 2.0 U | **63** | **190** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/17/2017 | 1.0 | 0.39 J | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | **56** | 0.65 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 0.77 J | 0.96 J | < 1.0 U | < 1.0 U | 20 | < 1.0 U | **99** | **40** | < 1.0 U | 1.3 | < 1.0 U | < 2.0 U |
| | 7/29/2020 | < 10 U | < 10 U | < 10 U | < 10 U | 20 | < 10 U | **120** | **25** | < 10 U | < 10 U | < 10 U | < 20 U |
| HR-2 | 9/16/1999 | < 1.0 U | 3.9 | < 1.0 U | < 1.0 U | 9.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U |
| | 9/19/2000 | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | 8.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U |
| | 11/7/2001 | < 1.0 U | 4.2 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | 0.56 J | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U |
| | 9/24/2002 | < 1.0 U | 4.9 | < 1.0 U | < 1.0 U | 8.8 | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U |
| | 9/16/2003 | < 1.0 U | 4.5 | < 1.0 U | < 1.0 U | 7.2 | < 1.0 U | < 1.0 U | 0.40 J | < 1.0 U | 0.96 | < 1.0 U | < 1.0 U |
| | 9/16/2004 | < 1.0 U | 5.6 | < 1.0 U | < 1.0 U | 7.8 | < 1.0 U | 0.37 J | 0.53 J | < 1.0 U | 1.1 | 0.23 J | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 4.4 | < 1.0 U | < 1.0 U | 5.0 | < 1.0 U | < 1.0 U | 0.35 J | < 1.0 U | 0.78 J | 0.29 J | < 2.0 U |
| | 9/25/2006 | < 1.0 U | 5.2 | < 1.0 U | < 1.0 U | 5.6 | < 1.0 U | < 1.0 U | 0.48 J | < 1.0 U | 0.79 J | < 1.0 U | < 2.0 U |
| | 9/26/2007 | < 1.0 U | 5.3 | < 1.0 U | < 1.0 U | 5.0 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | 0.76 J | < 1.0 U | < 2.0 U |
| | 10/1/2008 | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | 3.4 | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | 0.47 J | < 1.0 U | < 2.0 U |
| | 11/13/2009 | < 1.0 U | 5.6 | < 1.0 U | < 1.0 U | 3.7 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | 0.58 J | < 1.0 U | < 2.0 U |
| | 9/28/2010 | < 1.0 U | 5.6 | < 1.0 U | < 1.0 U | 2.8 | < 1.0 U | < 1.0 U | 0.39 J | < 1.0 U | 0.41 J | < 1.0 U | < 1.0 U |
| | 9/28/2011 | < 1.0 U | 6.4 | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 0.43 J | < 1.0 U | 0.32 J | < 1.0 U | < 2.0 U |
| | 9/7/2012 | < 1.0 U | 7.7 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 0.41 J | < 1.0 U | 0.28 J | < 1.0 U | < 2.0 U |
| | 9/27/2013 | < 1.0 U | 7.5 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 0.40 J | < 1.0 U | 0.28 J | < 1.0 U | < 2.0 U |
| | 10/8/2014 | < 1.0 U | 7.3 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | < 1.0 UB | < 1.0 U | 0.29 J | < 1.0 U | < 2.0 U |
| | 10/30/2015 | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.30 J | < 1.0 U | < 2.0 U |
| | 8/25/2016 | < 1.0 U | 9.5 | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | < 1.0 U | < 1.0 UB | < 1.0 U | 0.39 J | < 1.0 U | < 2.0 U |
| HR-3 | 9/16/1999 | < 1.0 U | 6.2 | < 1.0 U | < 1.0 U | 6.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/19/2000 | < 1.0 U | 5.1 | < 1.0 U | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/7/2001 | < 1.0 U | 6.9 | < 1.0 U | < 1.0 U | 5.1 | < 1.0 U | < 1.0 U | 0.66 J | < 1.0 U | 0.60 | < 1.0 U | < 1.0 U |
| | 9/24/2002 | < 1.0 U | 15 | < 1.0 U | < 1.0 U | 9.9 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U |
| | 9/16/2003 | < 1.0 U | 13 | < 1.0 U | < 1.0 U | 9.9 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U |
| | 9/16/2004 | 0.27 J | 23 | < 1.0 U | < 1.0 U | 18 | < 1.0 U | 0.32 J | **8.1** | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U |
| | 10/20/2005 | 0.34 J | 18 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | < 1.0 U | **10** | < 1.0 U | 1.5 | < 1.0 U | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| HR-3 | 9/25/2006 | < 1.0 U | 10 | < 1.0 U | < 1.0 U | 8.2 | < 1.0 U | < 1.0 U | **7.2** | < 1.0 U | 0.99 J | < 1.0 U | < 2.0 U |
| (continued) | 10/2/2008 | 0.84 J | 16 | 0.27 J | < 1.0 UJ | 17 | < 1.0 U | < 1.0 U | **32** | < 1.0 U | 1.6 | **2.2** | < 2.0 U |
| | 9/27/2013 | 6.9 | 12 | 0.51 J | < 1.0 U | 59 | < 1.0 U | < 1.0 U | **190** | < 1.0 U | 2.2 | 0.93 J | < 2.0 U |
| | 10/8/2014 | 7.6 J | 11 | < 1.0 U | < 1.0 U | **82** | < 1.0 U | < 1.0 U | **220** | < 1.0 U | 2.7 J | **6.4 J** | < 2.0 U |
| | 11/4/2015 | 7.3 | 9.6 | 0.68 J | < 1.0 U | **82** | < 1.0 U | < 1.0 U | **200** | < 1.0 U | 2.6 | **13** | < 2.0 U |
| | 8/25/2016 | 7.1 | 6.6 | < 2.0 U | < 2.0 U | **93** | < 2.0 U | 0.95 J | **200** | < 2.0 U | 2.5 | **4.2** | < 4.0 U |
| HR-4 | 9/14/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/20/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/6/2001 | 0.17 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.28 J | < 1.0 U | 0.88 J | 1.0 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/27/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.59 J | 0.71 J | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.55 J | 0.71 J | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/16/2004 | < 1.0 U | 0.77 J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.3 | 0.50 J | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.39 J | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2006 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | 0.41 J | 0.34 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2007 | < 1.0 U | 3.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/30/2008 | < 1.0 U | 4.1 | < 1.0 U | < 1.0 U | 0.23 J | < 1.0 U | 0.44 J | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/13/2009 | < 1.0 U | 5.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.37 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2010 | < 1.0 U | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.34 J | 0.28 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 4.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/7/2012 | 0.23 J | 5 | < 1.0 U | < 1.0 U | 0.35 J | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/27/2013 | 0.29 J | 3.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.21 J | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 0.71 J | 2.0 | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | 0.28 J | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | 1.2 | 1.6 | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | < 1.0 U | 0.33 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/19/2016 | 2 | 1.6 | < 1.0 U | < 1.0 U | 0.42 J | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/16/2017 | 1.9 | 2.1 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/24/2018 | 1.6 | 1.6 | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | 0.16 J | 0.29 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 2.2 | 1.7 | 0.19 J | < 1.0 U | 0.56 J | < 1.0 U | 0.22 J | 0.29 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 1.9 | 1.3 | < 1.0 U | < 1.0 U | 0.42 J | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | 1.9 | 1.9 | < 1.0 U | < 1.0 U | 0.71 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | 1.7 | 1.5 | < 1.0 U | < 1.0 U | 0.58 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/11/2023 | 2.0 | 1.5 | < 1.0 U | < 1.0 U | 0.73 J | < 1.0 U | < 1.0 U | 0.44 J | < 1.0 U | < 1.0 U | < 1.0 UJ | < 2.0 U |
| HR-5 | 9/16/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 10.5 | < 1.0 U | < 1.0 U | **12** | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U |
| | 9/19/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 5.6 | < 1.0 U | < 1.0 U | **8.1** | 3.0 | < 1.0 U | < 1.0 U | 2.0 |
| | 11/7/2001 | 0.17 J | 0.55 J | < 1.0 U | < 1.0 U | 7.8 | < 1.0 U | < 1.0 U | **11** | < 1.0 U | 0.74 | < 1.0 U | < 1.0 U |
| | 9/23/2002 | < 1.0 U | 0.55 J | < 1.0 U | < 1.0 U | 7.5 | < 1.0 U | < 1.0 U | **13** | < 1.0 U | 0.58 | < 1.0 U | < 1.0 U |
| | 9/18/2003 | < 1.0 U | 0.42 J | < 1.0 U | < 1.0 U | 5.0 | < 1.0 U | < 1.0 U | **11** | < 1.0 U | 0.46 J | < 1.0 U | < 1.0 U |
| | 9/13/2004 | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U | 4.8 | < 1.0 U | < 1.0 U | **11** | < 1.0 U | 0.44 J | < 1.0 U | < 1.0 U |
| | 10/18/2005 | < 1.0 U | 0.54 J | < 1.0 U | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | **13** | < 1.0 U | 0.52 J | 1.1 | < 2.0 U |
| | 9/22/2006 | < 1.0 UJ | 0.41 J | < 1.0 UJ | < 1.0 UJ | 5.2 J | < 1.0 UJ | 0.27 J | **13 J** | < 1.0 UJ | 0.46 J | 0.22 J | < 2.0 UJ |
| | 9/24/2007 | < 1.0 U | 0.51J | < 1.0 U | < 1.0 U | 5.4 | < 1.0 U | < 1.0 U | **13** | < 1.0 U | 0.41J | < 1.0 U | < 2.0 U |
| | 9/29/2008 | < 1.0 U | 0.48 J | < 1.0 U | < 1.0 U | 5.4 | < 1.0 U | < 1.0 U | **13** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 0.70 J | < 1.0 U | < 1.0 U | 7.0 | < 1.0 U | 0.57 J | **14** | < 1.0 U | 0.63 J | 0.36 J | < 2.0 U |
| HR-6 | 9/16/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/23/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| HR-7 | 9/17/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **9.8** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/19/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.65 | < 1.0 U | < 1.0 U | **9.4** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/19/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.65 | < 1.0 U | < 1.0 U | **9.4** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 2/26/2008 | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | 0.94 J | < 1.0 U | < 1.0 U | **7.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/23/2010 | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | **7.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | **7.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/6/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | **7.0** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 0.35 J | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | **6.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | **6.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/5/2015 | < 1.0 U | < 1.0 U | < 1.0 UF2J | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | **6.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/15/2016 | < 1.0 U | 0.34 J | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | **7.0** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| HR-16 | 9/23/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/18/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.46J | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 1/21/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/6/2012 | 0.62 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.61 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.14 J | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 0.58 J | 0.64 J | < 1.0 U | < 1.0 U | 0.44 J | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/5/2015 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | 0.63 J | < 1.0 U | < 2.0 U |
| | 8/22/2016 | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | 0.67 J | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 0.36 J | 0.75 J | < 1.0 U | < 1.0 U | 0.62 J | < 1.0 U | 0.17 J | 2.9 | < 1.0 U | 0.21 J | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 0.52 J | 0.67 J | < 1.0 U | < 1.0 U | 0.45 J | < 1.0 U | 0.42 J | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2021 | < 2.0 U | 1.5 J | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 1.2 J | 1.8 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| HR-17 | 9/23/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 6.2 | < 1.0 U | **16** | **7.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/28/2000 | 1.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.7 | 4.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 3.3 | 4.2 B | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 0.39 J | 1.5 | < 1.0 U | < 1.0 U | 5.1 | < 1.0 U | **22** | **12** | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U |
| | 9/25/2003 | < 2.0 U | 0.75 J | < 2.0 U | < 2.0 U | 2.2 | < 2.0 U | **64** | **10** | < 2.0 U | 0.7 J | < 2.0 U | < 2.0 U |
| | 9/17/2004 | < 5.0 U | 2.0 J | < 5.0 U | < 5.0 U | 7.1 | < 5.0 U | **82** | **18** | < 5.0 U | 1.6 J | < 5.0 U | < 5.0 U |
| | 10/19/2005 | < 1.0 U | 0.70 J | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | **45** | **8.3** | < 1.0 U | 0.57 J | < 1.0 U | < 3.7 U |
| | 9/18/2006 | < 1.0 U | 0.6 J | < 1.0 U | < 1.0 U | 4.6 | < 1.0 U | **34** | **5.6** | < 1.0 U | 0.46 J | < 1.0 U | < 2.0 U |
| | 9/25/2007 | < 2.5 U | 1.2 J | < 2.5 U | < 2.5 U | 1.9 J | < 2.5 U | **51** | **16** | < 2.5 U | 0.69 J | < 2.5 U | < 5.0 U |
| | 9/26/2008 | < 4.0 U | 1.1 J | < 4.0 U | < 4.0 U | 2.7 J | < 4.0 U | **120** | **31** | < 4.0 U | 1.0 J | < 4.0 U | < 8.0 U |
| | 11/12/2009 | < 2.5 U | 1.7 J | < 2.5 U | < 2.5 U | 1.9 J | < 2.5 U | **85** | **21** | < 2.5 U | 1.3 J | < 2.5 U | < 5.0 U |
| | 9/23/2010 | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | **60** | **18** | < 1.0 U | 1.2 J | < 1.0 U | < 3.3 U |
| | 9/29/2011 | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | **110** | **57** | < 5.7 U | < 5.7 U | < 5.7 U | < 1.0 U |
| | 9/6/2012 | < 9.1 U | < 9.1 U | < 9.1 U | < 9.1 U | 2.4 J | < 9.1 U | **140** | **75** | < 9.1 U | < 9.1 U | < 9.1 U | < 1.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| HR-17 | 9/25/2013 | 1.3 | 0.93 J | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | **150** | **100** | < 1.0 U | 0.92 J | < 1.0 U | < 2.0 U |
| (continued) | 10/7/2014 | < 5.0 U | 2.0 J | < 5.0 U | < 5.0 U | 2.2 J | < 5.0 U | **170** | **160** | < 5.0 U | < 5.0 U | < 5.0 U | < 1.0 U |
| | 11/4/2015 | 1.5 | 0.61 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **150** | **160** | < 1.0 U | 0.73 J | < 1.0 U | < 2.0 U |
| | 8/25/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **170** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/17/2017 | 0.80 J | 0.60 J | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | **150** | **24** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 4.8 | 2.2 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **180** | 0.92 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 7.4 | 1.6 | 0.54 J | < 1.0 U | 1.2 | < 1.0 U | **150** | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 2/13/2020 | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | **170** | 1.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 3.6 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **160** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/4/2021 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **130** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 11/9/2022 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **160** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 9/12/2023 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **200** | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| ME-1 | 8/31/1999 | 14 | 2.4 | < 1.0 U | < 1.0 U | 38 | < 1.0 U | **84** | **292** | < 1.0 U | 1.5 | **36** | < 1.0 U |
| ME-3 | 8/31/1999 | 43 | 6.1 | < 1.0 U | < 1.0 U | 5.7 | < 1.0 U | **58** | **48** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/21/2000 | 6.4 | 3.4 | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | 2.9 | **2.1** | < 1.0 U |
| | 11/15/2001 | 1.6 | 5.9 | < 1.0 U | < 1.0 U | 16 | < 1.0 U | 1.3 | 3.8 | 0.34 J | 2.7 | **7.3** | < 1.0 U |
| | 9/24/2002 | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 1.0 U | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 1.0 U | < 2.5 U | < 2.5 U |
| | 10/1/2003 | 0.31 J | 24 | < 1.0 U | 0.6 J | 0.96 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/15/2004 | 0.53 J | 18 | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | 0.21 J | 1.5 | < 1.0 U | < 0.50 U | 1.1 | < 1.0 U |
| | 10/18/2005 | 1.6 | 15 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 1.6 | < 2.0 U |
| | 9/27/2006 | 1.1 | 8.5 | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | 1.9 | 2.4 | < 1.0 U | 0.34 J | **2.2** | < 2.0 U |
| | 9/20/2007 | 2.0 | 3.8 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | **5.2** | 3.6 | < 1.0 U | < 1.0 U | 0.82 J | < 2.0 U |
| | 10/22/2008 | 2.1 | 1.8 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | **8.1** | 4.9 | < 1.0 U | < 1.0 U | 0.7 J | < 2.0 U |
| | 9/27/2013 | 1.0 | 0.41 J | < 1.0 U | < 1.0 U | 0.35 J | < 1.0 U | **7.1** | 4.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| ME-6 | 8/31/1999 | 2.9 | < 1.0 U | < 1.0 U | < 1.0 U | **255** | < 1.0 U | **213** | **474** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/21/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **99** | < 1.0 U | **6.7** | **19** | 1.9 | 2.5 | **6.1** | < 1.0 U |
| | 11/15/2001 | 2.2 | 2.7 | < 2.0 U | < 2.0 U | 65 | < 2.0 U | **8.2** | **23** | 0.42 J | 1.8 | **13** | < 2.0 U |
| | 9/25/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 5.2 | < 1.0 U | < 1.0 U | < 1.0 U | 6.6J | < 5.0 U | < 1.0 U | < 1.0 U |
| | 10/1/2003 | 13 | 7.2 | < 2.0 U | 0.46 J | 20 | < 2.0 U | **12** | **31** | < 2.0 U | < 1.0 U | **2.9** | < 2.0 U |
| | 9/15/2004 | 4.1 | 6.3 | 0.26 J | < 1.0 U | 14 | < 1.0 U | **5.3** | **9.2** | < 1.0 U | 0.56 | **2.4** | < 1.0 U |
| | 10/18/2005 | 2.2 | 7.0 | < 1.0 U | < 1.0 U | 13 | < 1.0 U | **9.8** | **25** | < 1.0 U | 0.93 J | **5.6** | < 2.0 U |
| | 9/27/2006 | 1.4 | 6.3 | < 1.0 U | < 1.0 U | 27 | < 1.0 U | **13** | **32** | < 1.0 U | 1.3 J | **11** | < 2.9 U |
| | 9/20/2007 | 0.61 J | 6.4 | < 1.0 U | < 1.0 U | 9.2 | < 1.0 U | 4.5 | **12** | < 1.0 U | 0.51 J | **4.5** | < 2.0 U |
| | 10/22/2008 | 2.7 | 11 | < 1.0 U | < 1.0 U | 5.2 | < 1.0 U | **7.7** | **9** | < 1.0 U | 0.25 J | 1.7 | < 2.0 U |
| | 9/27/2013 | 5.9 | 20 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | **5.1** | 2.8 | < 1.0 U | < 1.0 U | 0.28 J | < 2.0 U |
| RMW-89 | 1/15/2016 | 0.99 J | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | **46** | **22** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/24/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 4.4 | < 2.0 U | **61** | **21** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| RMW-90 | 1/15/2016 | 7.1 | 8.7 | 0.49 J | < 1.0 U | 38 | < 1.0 U | 0.86 J | **29** | < 1.0 U | 1.0 | 1.0 | < 2.0 U |
| | 8/17/2016 | 12 | 8.4 | 0.96 J | < 1.0 U | 31 | < 1.0 U | 1.5 | **55** | < 1.0 U | 0.99 J | 0.81 J | < 2.0 U |
| RMW-91 | 7/11/2019 | 1.8 J | 2.5 J | < 5.0 U | < 5.0 U | 25 | < 5.0 U | **130** | **62** | < 5.0 U | 2.3 J | < 5.0 U | < 10 U |
| | 2/14/2020 | 2.8 | 1.8 | < 1.0 U | < 1.0 U | 12 | < 1.0 U | **100** | **59** | < 1.0 U | 1.1 | < 1.0 U | < 2.0 U |
| | 7/28/2020 | 1.8 J | < 5.0 U | < 5.0 U | < 5.0 U | 8.9 | < 5.0 U | **83** | **53** | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| | 10/6/2021 | 2.9 | 1.6 J | < 2.0 U | < 2.0 U | 9.3 | < 2.0 U | **93 J** | **54** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| RMW-92 | 7/11/2019 | 1.6 | 0.55 J | < 1.0 U | < 1.0 U | 0.83 J | < 1.0 U | **57** | **1.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 2/14/2020 | 1.4 J | 0.56 J | < 2.0 U | < 2.0 U | 0.84 J | < 2.0 U | **54** | 1.0 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 7/28/2020 | 1.3 J | < 2.0 U | < 2.0 U | < 2.0 U | 0.79 J | < 2.0 U | **50** | 0.96 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/6/2021 | 1.8 J | < 2.0 U | < 2.0 U | < 2.0 U | 0.98 J | < 2.0 U | **55** | **< 2.0 U** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| RMW-93 | 7/11/2019 | 2.0 J | 0.66 J | < 2.5 U | < 2.5 U | 1.7 J | < 2.5 U | **90** | **7.2** | < 2.5 U | < 2.5 U | < 2.5 U | < 5.0 U |
| | 2/13/2020 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **50** | 3.7 | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 7/28/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **22** | 0.86 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/5/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/8/2022 | 0.68 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.57 J | < 1.0 U | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/13/2023 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-94 | 7/11/2019 | 1.2 J | 0.39 J | < 1.7 U | < 1.7 U | 0.40 J | < 1.7 U | **58** | 0.71 J | < 1.7 U | < 1.7 U | < 1.7 U | < 3.3 U |
| | 2/13/2020 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **38** | 0.39 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 7/28/2020 | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | **27** | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | < 3.3 U |
| | 10/5/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.0** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/12/2023 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RZ-1A | 9/29/1999 | 5.7 | 1.8 | < 1.0 U | < 1.0 U | 68.6 | < 1.0 U | **252** | **158** | < 1.0 U | 3.6 | **3.3** | < 1.0 U |
| RZ-1G | 9/29/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 14.8 | < 1.0 U | **91.5** | **44.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| RZ-3E | 9/30/1999 | 28.4 | 20.9 | 1.6 | < 1.0 U | **112** | < 1.0 U | **58.2** | **124** | < 1.0 U | 2.0 | **2.7** | < 1.0 U |
| RZ-3L | 9/30/1999 | 2.4 | 59.7 | < 1.0 U | **8.2** | **96.6** | 22.1 | < 1.0 U | **18.2** | 124 | 2.0 | **14.1** | 182.4 |
| RZ-3PP | 10/8/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | **14.7** | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U |
| RZ-3T | 9/30/1999 | 7.2 | 4.9 | < 1.0 U | < 1.0 U | 23.8 | < 1.0 U | **19.8** | **97.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| RZ-3Z | 9/29/1999 | 3.8 | 1.5 | < 1.0 U | < 1.0 U | 3.2 | < 1.0 U | **20.6** | **33.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| RZ-4B | 8/3/2006 | 6.1 | 3.7 J | < 4.0 U | < 4.0 U | 11 | < 4.0 U | **89** | **93** | < 4.0 U | 1.1 J | < 4.0 U | < 8.0 U |
| RZ-4O | 8/3/2006 | 3.8 J | 2.6 J | < 4.0 U | < 4.0 U | 13 | < 4.0 U | **110** | **82** | < 4.0 U | 1.6 J | < 4.0 U | < 8.0 U |
| W-1-N | 9/17/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/19/2002 | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/27/2013 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2014 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 0.21 J | < 1.0 U | < 1.0 U | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 4.2 | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | < 1.0 U | 0.25 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/18/2016 | < 1.0 U | 4.8 | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| W-2-N | 9/14/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/19/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/6/2001 | 0.48 J | 0.33 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/19/2002 | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/16/2004 | 0.30 J | 0.36 J | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | 0.31 J | 1.4 | < 1.0 U | 0.20 J | < 1.0 U | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 0.28 J | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 0.91 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| W-2-N (continued) | 9/22/2006 | 0.25 J | 0.29 J | < 1.0 UJ | < 1.0 U | 1.4 J | < 1.0 UJ | < 1.0 UJ | 1 J | < 1.0 UJ | 0.18 J | < 1.0 UJ | < 2.0 UJ |
| | 9/25/2007 | < 1.0 U | 0.22 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 0.88 J | 0.28 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 0.47 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/13/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 0.37 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/6/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.89 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 0.20 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | 0.25 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/15/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.8 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/15/2017 | 0.28 J | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/24/2018 | 0.38 J | 0.31 J | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | 0.28 J | < 1.0 U | < 2.0 U |
| | 7/9/2019 | < 1.0 U | 0.19 J | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.22 J | < 1.0 U | < 2.0 U |
| | 7/29/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 0.79 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 0.91 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/11/2023 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 0.55 J | < 1.0 U | < 1.0 U | < 1.0 UJ | < 2.0 U |
| W-3-N | 9/17/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **291** | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | 2.6 | **13** | < 1.0 U |
| | 9/19/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **282** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.9 | **24** | < 1.0 U |
| | 11/7/2001 | < 5.6 U | < 5.6 U | < 5.6 U | < 5.6 U | **160** | < 5.6 U | **9.0** | 2.1 J | < 5.6 U | 2.2 J | **7.6** | < 5.6 U |
| | 9/23/2002 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | **150** | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | < 3.3 U | **6.5 J** | < 6.7 U |
| | 9/17/2003 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **100** | < 4.0 U | **5.1** | 1.7 J | < 4.0 U | 1.6 J | **6.6** | < 4.0 U |
| | 9/16/2004 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **120** | < 4.0 U | 0.94 J | < 4.0 U | < 4.0 U | 1.6 J | **6.1** | < 4.0 U |
| | 10/20/2005 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **84** | < 4.0 U | 1.4 J | < 4.0 U | < 4.0 U | 1.0 J | **8.0** | < 8.0 U |
| | 9/25/2006 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **140** | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | 1.9 J | **9.6** | < 1.0 U |
| | 9/26/2007 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **110** | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | 1.4 J | **5.6** | < 8.0 U |
| | 9/29/2008 | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | **98** | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | 1.4 J | **3.8** | < 6.7 U |
| | 11/13/2009 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **72** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 0.99 J | **3.2** | < 4.0 U |
| | 9/24/2010 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 56 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 0.79 J | **2.4** | < 4.0 U |
| | 9/28/2011 | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | 53 | < 2.5 U | 0.94 J | < 2.5 U | < 2.5 U | 0.80 J | **2.7** | < 5.0 U |
| | 9/6/2012 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 41 | < 2.0 U | 0.60 J | < 2.0 U | < 2.0 U | 0.79 J | 1.4 J | < 4.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 34 | < 1.0 U | 0.96 J | < 1.0 U | < 1.0 U | 0.64 J | 1.6 | < 2.0 U |
| | 10/7/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 31 | < 1.0 U | 0.52 J | < 1.0 U | < 1.0 U | 0.47 J | 1.0 | < 2.0 U |
| | 11/4/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 29 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.42 J | 1.3 | < 2.0 U |
| | 8/19/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 22 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.34 J | 1.9 | < 2.0 U |
| | 8/15/2017 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 24 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.38 J | 1.4 | < 2.0 U |
| | 7/24/2018 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 16 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | 1.1 | < 2.0 U |
| | 7/9/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 14 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.23 J | 0.81 J | < 2.0 U |
| | 7/29/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.88 J | < 2.0 U |
| | 10/4/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 2.0 U |
| | 11/9/2022 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 9.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.76 J | < 2.0 U |
| | 9/11/2023 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.71 J- | < 2.0 U |
| W-4-N | 9/17/1999 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | 2.1 | **9.8** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/19/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | **7.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/7/2001 | 0.33 J | 0.89 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | 0.92 J | **7.1** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/24/2002 | 0.44 J | 1.7 | < 1.0 U | < 1.0 U | 5.2 | < 1.0 U | 0.94 J | **8.5** | < 1.0 U | 0.33 J | 0.77 J | < 1.0 U |
| | 9/17/2003 | 0.26 J | 0.94 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | 1.1 | **8.1** | < 1.0 U | < 0.50 U | 0.48 J | < 1.0 U |
| | 9/16/2004 | 0.40 J | 1.7 | < 1.0 U | < 1.0 U | 5.8 | < 1.0 U | 1.7 | **12** | < 1.0 U | 0.38 J | 0.49 J | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | 1.0 | **7.2** | < 1.0 U | < 1.0 U | 0.54 J | < 2.0 U |
| | 9/25/2006 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | 0.96 J | **7.6** | < 1.0 U | 0.19 J | 0.56 J | < 2.0 U |
| | 9/26/2007 | 0.34 J | 1.6 | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | 0.88 J | **10** | < 1.0 U | 0.24 J | 0.96 J | < 2.0 U |
| | 9/29/2008 | 0.39 J | 1.9 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.38 J | **8.4** | < 1.0 U | 0.92 J | 0.34 J | < 2.0 U |
| | 11/13/2009 | 0.47 J | 1.6 | < 1.0 U | < 1.0 U | 5.7 | < 1.0 U | 0.68 J | **15** | < 1.0 U | 0.39 J | 0.25 J | < 2.0 U |
| | 9/24/2010 | 0.41 J | 2.1 | < 1.0 U | < 1.0 U | 7.9 | < 1.0 U | 0.67 J | **13** | < 1.0 U | 0.51 J | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 9.7 | < 1.0 U | 1.1 | **9.9** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 9/7/2012 | < 1.0 U | 5.6 | < 1.0 U | < 1.0 U | 14 | < 1.0 U | 0.52 J | **6.3** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 9/27/2013 | < 1.0 U | 7.1 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.63 J | **7.4** | < 1.0 U | 0.76 J | 0.18 J | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 5.7 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.49 J | **9.2** | < 1.0 U | 0.69 J | < 1.0 U | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 4.2 | < 1.0 U | < 1.0 U | 7.0 | < 1.0 U | < 1.0 U | **12** | < 1.0 U | 0.51 J | < 1.0 U | < 2.0 U |
| | 8/19/2016 | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | 9.5 | < 1.0 U | < 1.0 U | **10** | < 1.0 U | 0.63 J | < 1.0 U | < 2.0 U |
| | 8/16/2017 | < 1.0 U | 6.5 | < 1.0 U | < 1.0 U | 9.2 | < 1.0 U | 0.38 J | **8.8** | < 1.0 U | 0.64 J | < 1.0 U | < 2.0 U |
| | 7/24/2018 | < 1.0 U | 6.9 | < 1.0 U | < 1.0 U | 8.7 | < 1.0 U | 0.26 J | **6.1** | < 1.0 U | 1.3 | < 1.0 U | < 2.0 U |
| | 7/9/2019 | < 1.0 U | 7.6 | < 1.0 U | < 1.0 U | 6.6 | < 1.0 U | 0.72 J | **9.2** | < 1.0 U | 0.88 J | < 1.0 U | < 2.0 U |
| | 7/29/2020 | < 1.0 U | 7.3 | < 1.0 U | < 1.0 U | 8.2 | < 1.0 U | 0.81 J | **6.9** | < 1.0 U | 0.55 J | < 1.0 U | < 2.0 U |
| | 10/4/2021 | < 1.0 U | 9.0 | < 1.0 U | < 1.0 U | 8.9 | < 1.0 U | < 1.0 U | **7.0** | < 1.0 U | 0.60 J | < 1.0 U | < 2.0 U |
| | 11/9/2022 | < 1.0 U | 6.3 | < 1.0 U | < 1.0 U | 4.8 | < 1.0 U | 1.4 | **9.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/11/2023 | < 1.0 U | 7.5 | < 1.0 U | < 1.0 U | 6.9 | < 1.0 U | 0.55 J | **8.7** | < 1.0 U | 1.1 | < 1.0 UJ | < 2.0 U |
| W-1-S | 9/22/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 8.0 | < 1.0 U | **31** | **11.6** | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U |
| | 9/19/2002 | < 2.0 U | 0.97 J | < 2.0 U | < 2.0 U | 6.0 | < 2.0 U | **62** | **16** | < 2.0 U | 1.3 | < 2.0 U | < 2.0 U |
| W-2-S | 9/23/1999 | 1.9 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/27/2000 | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 5.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 1.7 | 0.58 J | < 1.0 U | < 1.0 U | 0.49 J | < 1.0 U | < 1.0 U | **5.2 B** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 1.5 | 0.98 J | < 1.0 U | < 1.0 U | 0.90 | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/26/2003 | 1.4 | 0.99 J | < 1.0 U | < 1.0 U | 0.74 | < 1.0 U | < 1.0 U | **5.5** | 0.25 J | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/17/2004 | 1.5 | 1.3 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.55 J | **6.0** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/19/2005 | 1.6 | 1.2 | < 1.0 U | < 1.0 U | 0.78 J | < 1.0 U | 0.36 J | **5.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/18/2006 | 1.8 | 1.2 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | **5.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2007 | 1.4 | 1.1 | < 1.0 U | < 1.0 U | 0.89 J | < 1.0 U | < 1.0 U | **5.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2008 | 1.4 | 0.92 J | < 1.0 U | < 1.0 U | 0.78 J | < 1.0 U | < 1.0 U | **5.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 1.7 | 1.2 | < 1.0 U | 0.43 J | 0.90 J | < 1.0 UJ | 0.35 J | **6.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| W-2-S (continued) | 9/24/2010 | 1.4 | 1.1 | < 1.0 U | < 1.0 U | 0.82 J | < 1.0 U | 0.33 J | **5.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2011 | 1.6 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.44 J | **7.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/6/2012 | 1.6 | 1.1 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.35 J | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 1.8 | 0.86 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.31 J | **6.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 0.79 J | 0.80 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | 0.33 J | 5.0 | < 1.0 U | 0.34 J | < 1.0 U | < 2.0 U |
| | 11/5/2015 | < 1.0 U | 0.63 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.36 J | **23** | < 1.0 U | 0.47 J | < 1.0 U | < 2.0 U |
| | 8/23/2016 | 1.4 | 1.0 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | 0.34 J | **6.6** | < 1.0 U | 0.30 J | < 1.0 U | < 2.0 U |
| | 8/16/2017 | 1.3 | 1.1 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | **5.9** | < 1.0 U | 0.40 J | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 0.98 J | 0.83 J | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | 2.0 | 4.6 | < 1.0 U | 0.32 J | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 0.60 J | 0.23 J | < 1.0 U | < 1.0 U | 0.29 J | < 1.0 U | **20** | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 2/12/2020 | 1.3 | 0.79 J | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | 1.0 | **5.9** | < 1.0 U | 0.25 J | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 0.85 J | 0.60 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **6.3** | 3.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | 1.0 | 0.79 J | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | 1.0 | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | 0.59 J | 0.60 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **28** | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/12/2023 | 0.70 J | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **12** | **6.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| W-3-S | 9/23/1999 | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | 2.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/28/2000 | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.44 J | 1.5 B | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.61 J | 2.4 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/26/2003 | 1.8 | < 1.0 U | < 1.0 U | < 1.0 U | 0.34 J | < 1.0 U | 0.81 J | 2.0 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/17/2004 | 2.4 | 0.21 J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.2 | 2.9 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/19/2005 | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.0 | 2.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/18/2006 | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.60 J | 3.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2007 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.72 J | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2008 | 1.2 | 0.21 J | < 1.0 U | < 1.0 U | 0.52 J | < 1.0 U | 1.3 | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | < 1.0 UJ | 0.87 J | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/23/2010 | 0.87 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.95 J | 2.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2011 | 0.51 J | 0.38 J | < 1.0 U | < 1.0 U | 0.72 J | < 1.0 U | 2.8 | 2.6 | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 9/6/2012 | 0.60 J | 0.89 J | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | 4.4 | **5.7** | < 1.0 U | 0.49 J | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.49 J | 1.2 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | **25** | **21** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 0.76 J | 0.96 J | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | **38** | **35** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 0.41 J | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | **65** | **97** | < 1.0 U | 0.31 J | < 1.0 U | < 2.0 U |
| | 8/23/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 2.1 | < 2.0 U | **62** | **11** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/16/2017 | 0.62 J | 0.66 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | **68** | **7.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 0.87 J | 0.61 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **19** | **27** | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 2.5 | 0.83 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **81** | **5.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 2/13/2020 | 1.9 | 0.28 J | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | **140** | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | 1.6 | 0.48 J | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | **110** | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/4/2021 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 4.6 | < 2.0 U | **92** | 1.6 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 11/9/2022 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **130** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 9/12/2023 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **150** | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| W-4-S | 9/23/1999 | 3.3 | 1.2 | < 1.0 U | < 1.0 U | 4.4 | < 1.0 U | **31 J** | **15 J** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/28/2000 | 3.0 | 1.0 | < 1.0 U | < 1.0 U | 4.0 | < 1.0 U | **15** | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 2.9 | 1.1 | < 1.0 U | < 1.0 U | 3.3 | < 1.0 U | **13** | **8.9 B** | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U |
| | 9/18/2002 | 2.3 | 0.87 J | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | **17** | **9.8** | < 1.0 U | 0.60 | < 1.0 U | < 1.0 U |
| | 9/26/2003 | 2.0 | 0.92 J | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | **24** | **13** | 0.25 J | 0.78 | < 1.0 U | < 1.0 U |
| | 9/17/2004 | 2.3 | 1.2 | < 1.0 U | < 1.0 U | 4.4 | < 1.0 U | **18** | **13** | < 1.0 U | 0.97 | < 1.0 U | < 1.0 U |
| | 10/19/2005 | 2.4 | 1.4 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | **20** | **13** | < 1.0 U | 1.1 | < 1.0 U | < 2.0 U |
| | 9/19/2006 | 1.7 | 1.3 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | **18** | **12** | < 1.0 U | 1.0 | < 1.0 U | < 2.0 U |
| | 9/24/2007 | 1.5 | 1.8 | < 1.0 U | < 1.0 U | 5.9 | < 1.0 U | **26** | **16** | < 1.0 U | 1.3 | < 1.0 U | < 2.0 U |
| | 9/26/2008 | 0.95 J | 1.3 | 0.21 J | < 1.0 U | 6 | < 1.0 U | **32** | **16** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 1.3 | 1.6 | < 1.0 U | < 1.0 U | 9.1 | < 1.0 U | **39** | **23** | < 1.0 U | 1.5 | < 1.0 U | < 2.0 U |
| | 9/23/2010 | 1.1 | 1.6 | < 1.0 U | < 1.0 U | 9.1 | < 1.0 U | **31** | **20** | < 1.0 U | 1.5 | < 1.0 U | < 2.0 U |
| | 9/29/2011 | 1.1 | 1.5 | < 1.0 U | < 1.0 U | 8.9 | < 1.0 U | **31** | **21** | < 1.0 U | 1.4 | < 1.0 U | < 2.0 U |
| | 9/6/2012 | 1.0 J | 1.6 J | < 1.0 U | < 1.0 U | 9.4 | < 1.0 U | **26** | **21** | < 1.0 U | 1.4 J | < 1.0 U | < 3.3 U |
| | 9/25/2013 | 1.6 | 1.9 | < 1.0 U | < 1.0 U | 6.3 | < 1.0 U | **60** | **50** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 1.4 J | 1.3 J | < 2.5 U | < 2.5 U | 6.1 | < 2.5 U | **65** | **63** | < 2.5 U | 1.1 J | < 2.5 U | < 5.0 U |
| | 11/4/2015 | 1.9 J | 2.3 | < 2.0 U | < 2.0 U | 9.7 | < 2.0 U | **74** | **72** | < 2.0 U | 1.4 J | < 2.0 U | < 4.0 U |
| | 8/23/2016 | 1.6 J | 1.7 J | < 2.0 U | < 2.0 U | 12 | < 2.0 U | **54** | **45** | < 2.0 U | 1.1 J | < 2.0 U | < 4.0 U |
| | 8/16/2017 | 1.5 | 2.7 | < 1.0 U | < 1.0 U | 22 | < 1.0 U | **39** | **40** | < 1.0 U | 2.1 | < 1.0 U | < 2.0 U |
| | 7/25/2018 | 1.8 | 2.1 | < 1.0 U | < 1.0 U | 17 | < 1.0 U | **68** | **42** | < 1.0 U | 1.5 | < 1.0 U | < 2.0 U |
| | 7/9/2019 | 1.7 | 1.6 | < 1.0 U | < 1.0 U | 13 | < 1.0 U | **70** | **33** | < 1.0 U | 1.2 | < 1.0 U | < 2.0 U |
| | 2/13/2020 | 1.7 J | 0.72 J | < 2.0 U | < 2.0 U | 9.4 | < 2.0 U | **43** | **48** | < 2.0 U | 0.79 J | < 2.0 U | < 4.0 U |
| | 7/29/2020 | 0.71 J | < 2.0 U | < 2.0 U | < 2.0 U | 1.0 J | < 2.0 U | **37** | **9.1** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/4/2021 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **29** | 3.5 | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 11/9/2022 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **26** | 0.92 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/12/2023 | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **22** | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| EAST | 9/21/1999 | 21 | 5.4 | < 1.0 U | < 1.0 U | 9.1 | < 1.0 U | **61** | **56** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/22/2000 | 22 | 7.7 | 1.2 | < 1.0 U | **77** | < 1.0 U | **56** | **97** | < 1.0 U | 1.8 | **3.0** | < 1.0 U |
| | 11/12/2001 | 13 | 6.2 | 0.90 J | < 3.3 U | 51 | < 3.3 U | **56** | **92** | < 3.3 U | 2.7 | 1.5 J | < 3.3 U |
| | 9/23/2002 | 10 | 3.9 | 0.73 J | < 2.0 U | 8.8 | < 2.0 U | **49** | **46** | < 2.0 U | < 1.0 U | < 2.0 U | < 2.0 U |
| | 9/25/2003 | 7.1 | 2.3 | < 2.0 U | < 2.0 U | 4.3 | < 2.0 U | **47** | **35** | < 2.0 U | < 1.0 U | < 2.0 U | < 2.0 U |
| | 9/13/2004 | 5.7 | 0.72 J | 0.34 J | < 1.0 U | 1.6 | < 1.0 U | **40** | **23** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/18/2005 | 5.9 | 3.0 | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | **47** | **23** | < 1.0 U | < 1.0 U | 1.2 | < 2.0 U |
| | 9/21/2006 | 10 | 3.2 | 0.59 J | < 1.0 U | 4.1 | < 1.0 U | **41** | **29** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.9 U |
| | 7/30/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **15** | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **22** | 1.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| WEST | 9/21/1999 | 24.8 | 25.6 | < 1.0 U | < 1.0 U | **125** | < 1.0 U | **41** | **37** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 7/30/2020 | < 1.0 U | 1.7 J | < 1.0 U | < 1.0 U | **6.0 J** | < 1.0 U | **13** | 4.4 | < 1.0 U | < 1.0 U | 0.98 J | < 2.0 U |
| | 10/8/2021 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 3.0 | < 1.0 U | **10** | 2.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| **Downgradient of the Site** | | | | | | | | | | | | | |
| 4S | 9/20/1999 | < 1.0 U | 1.6 | < 1.0 U | 1.6 | < 1.0 U | <10 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 10 U |
| | 10/2/2003 | < 2.0 U | 7.0 | < 2.0 U | 1.6 J | < 1.0 U | 1.7 J | < 2.0 U | < 2.0 U | < 2.0 U | 1.7 | < 2.0 U | < 2.0 U |
| | 9/14/2004 | < 5.0 U | 7.5 | < 5.0 U | 4.5 J | < 2.5 U | 4.7 J | < 5.0 U | < 5.0 U | 1.1 J | < 2.5 U | < 5.0 U | 2.4 J |
| | 10/19/2005 | < 4.0 U | 2.3 J | < 4.0 U | 1.6 J | < 4.0 U | 1.6 J | < 4.0 U | < 4.0 U | < 4.0 U | 0.95 J | < 4.0 U | < 8.0 U |
| | 9/20/2006 | < 1.0 U | 5.6 | < 1.0 U | 0.7 J | 0.25 J | 0.52 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.75 J | < 1.0 U | < 2.0 U |
| GM-2 | 9/20/1999 | 5.5 | 1.4 | < 1.0 U | < 1.0 U | 8.4 | <10 | **6.0** | **62** | < 1.0 U | < 1.0 U | < 1.0 U | < 10 U |
| | 9/25/2000 | 5.7 | 3.7 | < 1.0 U | < 1.0 U | 39 | < 1.0 U | **7.7** | **83** | < 1.0 U | 1.3 | 1.7 | < 1.0 U |
| | 11/9/2001 | 6.1 | 6.1 | < 3.3 U | < 3.3 U | 26 | < 3.3 U | **8.4** | **65** | < 3.3 U | 1.1J | < 3.3 U | < 3.3 U |
| | 9/20/2002 | 0.75 J | 3.4 | < 1.0 U | < 1.0 U | 7.6 | < 1.0 U | **8.7** | **26** | < 1.0 U | 0.37J | < 1.0 U | < 1.0 U |
| | 10/2/2003 | 0.21 J | 1.7 | < 1.0 U | < 1.0 U | 4.7 | 0.21 J | **5.7** | **13** | < 1.0 U | < 0.50 U | 0.46 J | < 1.0 U |
| | 9/14/2004 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 5.6 | < 1.0 U | 4.0 | **6.2** | < 1.0 U | 0.23 J | < 1.0 U | < 1.0 U |
| | 10/19/2005 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 6.8 | < 1.0 U | 3.6 | 4.6 | < 1.0 U | 0.26 J | 0.24 J | < 2.0 U |
| | 9/20/2006 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 7.7 | < 1.0 U | 2.6 | **5.1** | < 1.0 U | 0.34 J | 0.61 J | < 2.0 U |
| | 9/18/2007 | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | 1.6 | 2.3 | < 1.0 U | 0.28 J | 1.1 | < 2.0 U |
| | 9/24/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 6.7 | < 1.0 U | 1.3 | 2.4 | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 11/11/2009 | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | 3.2 | < 1.0 U | 0.90 J | 1.4 | < 1.0 U | < 1.0 U | **2.3** | < 2.0 U |
| | 9/27/2010 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | 0.44 J | 0.95 J | < 1.0 U | < 1.0 U | **2.5** | < 2.0 U |
| | 9/29/2011 | < 1.0 U | 0.92 J | < 1.0 U | < 1.0 U | 9.0 | < 1.0 U | < 1.0 U | 0.75 J | < 1.0 U | < 1.0 U | 0.69 J | < 2.0 U |
| | 9/6/2012 | < 1.0 U | 0.71 J | < 1.0 U | < 1.0 U | 15 | < 1.0 U | < 1.0 U | 0.96 J | 0.46 J | < 1.0 U | 1.2 | < 2.0 U |
| | 9/25/2013 | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | 13 | < 1.0 U | 0.31 J | 0.70 J | < 1.0 U | 0.26 J | 1.3 | < 2.0 U |
| | 10/7/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 12/8/2015 | < 1.0 U | 0.40 J | < 1.0 U | < 1.0 U | 3.2 | < 1.0 U | 3.6 | **6.7** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/19/2016 | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U | 8.9 | < 1.0 U | **8.5** | **6.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/12/2019 | 0.33 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.33 J | < 1.0 U | **28** | **7.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/31/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **30** | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **43** | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/10/2022 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **35** | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/15/2023 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **35** | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-10 | 9/21/1999 | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **15** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/27/2000 | 2.5 | 1.4 | < 1.0 U | < 1.0 U | 5.7 | < 1.0 U | 1.4 | **23** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 2.7 | 3.4 | < 1.0 U | < 1.0 U | 16 | < 1.0 U | 1.9 | **27** | < 1.0 U | 0.93 | 1.2 | < 1.0 U |
| | 9/18/2002 | 1.8 | 0.61 J | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | 1.1 | **19** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/24/2003 | 0.96 J | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 2.2 | **33** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/14/2004 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | 0.38 J | < 1.0 U | 1.5 | **15** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/20/2005 | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | 0.31 J | < 1.0 U | 1.2 | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/27/2006 | 0.90 J | 0.29 J | < 1.0 U | < 1.0 U | 0.77 J | < 1.0 U | 0.98 J | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/19/2007 | 0.75 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.35 J | < 1.0 U | 0.93 J | **8.8** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2008 | 0.53 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.85 J | **5.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.20 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.0 | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.85 J | 2.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-16 | 9/21/1999 | 2.2 | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **44** | **8.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/26/2000 | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **16** | 3.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 2.2 | 0.31 J | < 1.0 U | < 1.0 U | 0.39 J | < 1.0 U | **17** | 3.6 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/24/2002 | 1.4 J | 4.1 | < 2.0 U | < 2.0 U | 6.2 | < 2.0 U | **63** | **28** | < 2.0 U | 1.6 | < 2.0 U | < 2.0 U |
| | 9/22/2003 | 1.9 J | 2.8 J | < 4.0 U | < 4.0 U | 5.8 | < 4.0 U | **110** | **57** | < 4.0 U | 1.1 J | < 4.0 U | < 4.0 U |
| | 9/16/2004 | 3.1 J | 4.3 | < 3.3 U | < 3.3 U | 7.4 | < 3.3 U | **130** | **90** | < 3.3 U | 1.0 J | < 3.3 U | < 3.3 U |
| | 10/19/2005 | 1.7 J | 1.1 J | < 3.3 U | < 3.3 U | 2.8 J | < 3.3 U | **100** | **55** | < 3.3 U | 0.90 J | < 3.3 U | < 6.7 U |
| | 9/18/2006 | 2.1 | 1.1 J | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | **98** | **51** | < 1.0 U | 1 J | < 1.0 U | < 2.9 U |
| | 9/25/2007 | 1.4 J | 1.5 J | < 4.0 U | < 4.0 U | 43 | < 4.0 U | **94** | **52** | < 4.0 U | 1.3 J | < 4.0 U | < 8.0 U |
| | 9/30/2008 | 1.8 J | 3.8 | < 3.3 U | < 3.3 U | 20 | < 3.3 U | **100** | **48** | < 3.3 U | 1.1 J | < 3.3 U | < 6.7 U |
| | 11/16/2009 | 1.4 J | 1.6 J | < 3.3 U | < 3.3 U | 12 | < 3.3 U | **110** | **74** | < 3.3 U | 1.5 J | < 3.3 U | < 6.7 U |
| | 9/23/2010 | 1.1 J | 1.3 J | < 4.0 U | < 4.0 U | 2.2 J | < 4.0 U | **110** | **75** | < 4.0 U | 1.2 J | < 4.0 U | < 8.0 U |
| | 9/29/2011 | < 3.3 U | 5.5 | < 3.3 U | < 3.3 U | 23 | < 3.3 U | **64** | **45** | < 3.3 U | 0.77 J | 1.2 J | < 6.7 U |
| | 9/5/2012 | 0.94 J | 3.8 J | < 4.0 U | < 4.0 U | 12 | < 4.0 U | **66** | **41** | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 9/25/2013 | 0.36 J | 4.4 | < 1.0 U | < 1.0 U | 12 | < 1.0 U | **51** | **17** | < 1.0 U | 0.40 J | 0.55 J | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | 7.7 | < 1.0 U | **31** | **7.5** | < 1.0 U | 0.26 J | 0.97 J | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 12 | < 1.0 U | **35** | **8.3** | < 1.0 U | 0.34 J | **10** | < 2.0 U |
| | 8/18/2016 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 7.4 | < 1.0 U | **23** | **5.7** | < 1.0 U | < 1.0 U | 0.31 J | < 2.0 U |
| | 7/8/2019 | < 1.0 U | 0.54 J | < 1.0 U | < 1.0 U | 5.6 | < 1.0 U | **13** | 3.0 | < 1.0 U | < 1.0 U | 0.45 J | < 2.0 U |
| | 2/11/2020 | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | 6.2 | < 1.0 U | **10** | 3.1 | < 1.0 U | < 1.0 U | 0.52 J | < 2.0 U |
| | 7/28/2020 | < 1.0 U | 0.45 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **12** | 3.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/5/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | **8.3** | 2.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-17 | 9/21/1999 | 6.4 | 26 | < 1.0 U | < 1.0 U | 30 | < 1.0 U | < 1.0 U | **29** | < 1.0 U | 2.6 | 1.4 | < 1.0 U |
| | 9/27/2000 | 6.7 | 24 | < 1.0 U | < 1.0 U | 42 | < 1.0 U | **25** | **48** | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 6.8 | 7.3 | < 3.3 U | < 3.3 U | 16 | < 3.3 U | **48** | **79** | < 3.3 U | 1.8 | < 3.3 U | < 3.3 U |
| | 9/19/2002 | 2.3 | 6.0 | < 1.0 U | < 1.0 U | 13 | < 1.0 U | **22** | **39** | < 1.0 U | 0.67 | 0.79 J | < 1.0 U |
| | 9/24/2003 | 1.3 | 1.2 | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | **12** | **24** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/15/2004 | 1.1 | 4 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 3.6 | **22** | < 1.0 U | 0.64 | 0.49 J | < 1.0 U |
| | 10/20/2005 | 1.4 | 5.5 | < 1.0 U | < 1.0 U | 9.0 | < 1.0 U | **8.1** | **29** | < 1.0 U | 0.57 J | 2.0 | < 2.0 U |
| | 9/27/2006 | 0.46 J | 3.2 | < 1.0 U | < 1.0 U | 9.5 | < 1.0 U | **11** | **24** | < 1.0 U | 0.49 J | 0.54 J | < 2.0 U |
| | 9/18/2007 | 0.31 J | 1.5 | < 1.0 U | < 1.0 U | 4.0 | < 1.0 U | **7.3** | **15** | < 1.0 U | 0.22 J | < 1.0 U | < 2.0 U |
| | 9/24/2008 | 0.29 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.8 | **10** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/27/2013 | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | 2.8 | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.58 J | < 1.0 U | **26** | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-18 | 9/22/1999 | 43 | 23 | 1.3 | < 1.0 U | 35 | < 1.0 U | 4.9 | **131** | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U |
| | 9/27/2000 | 32 | 10 | < 1.0 U | < 1.0 U | 24 | < 1.0 U | **7.8** | **115** | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U |
| | 11/8/2001 | 23 | 3.3 | 1.3J | < 3.3 U | 14 | < 3.3 U | **12** | **93** | < 3.3 U | 1.6 J | < 3.3 U | < 3.3 U |
| | 9/19/2002 | 18 | 6.0 | < 3.3 U | < 3.3 U | 15 | < 3.3 U | **28** | **98** | < 3.3 U | 1.6 J | < 3.3 U | < 3.3 U |
| | 9/22/2003 | 10 | 3.7 | < 2.0 U | < 2.0 U | 8.8 | < 2.0 U | **24** | **77** | < 2.0 U | < 1.0 U | 0.75 J | < 2.0 U |
| | 9/15/2004 | 5.2 | 2.2 | 0.46 J | < 2.0 U | 5.9 | < 2.0 U | **20** | **53** | < 2.0 U | < 1.0 U | < 2.0 U | < 2.0 U |
| | 10/20/2005 | 7.0 | 15 | 0.30 J | < 1.0 U | 14 | < 1.0 U | **21** | **70 J** | < 1.0 U | 1.2 | **3.0** | < 2.0 U |
| | 9/27/2006 | 6.2 | 17 | < 2.9 U | < 2.9 U | 21 | < 2.9 U | **15** | **72** | < 2.9 U | 2 J | **2.5 J** | < 5.7 U |
| | 9/19/2007 | 5.4 | 13 | < 2.5 U | < 2.5 U | 19 | < 2.5 U | **14** | **64** | < 2.5 U | 1.2 J | 1.1 J | < 5.0 U |
| | 9/24/2008 | 2.3 | < 6.1 U | < 1.0 U | < 1.0 U | 13 | < 1.0 U | **16** | **38** | < 1.0 U | 0.79 J | < 1.0 U | < 2.9 U |
| | 9/25/2013 | 0.22 J | 0.68 J | < 1.0 U | < 1.0 U | 3.7 | < 1.0 U | **17** | **10** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 12/11/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.78 J | < 1.0 U | **6.2** | **6.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/11/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **11** | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-25 | 9/22/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/21/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-26 | 9/22/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/27/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/12/2001 | 0.19 J | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/25/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.92 J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/1/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 0.85 J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/16/2004 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/20/2005 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/21/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.91 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/27/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 1/21/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/1/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | < 1.0 U | < 1.0 U | < 1.0 U | 0.51 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/22/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/15/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-46 | 3/2/2006 | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | 6.8 | < 1.0 U | < 1.0 U | **22** | < 1.0 U | 0.35 J | 1.9 | < 2.0 U |
| | 11/30/2006 | < 1.0 U | 0.43 J | < 1.0 U | < 1.0 U | 5.2 | < 1.0 U | 0.67 J | 1.5 | < 1.0 U | < 1.0 U | 1.5 | < 2.0 U |
| | 10/9/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.30 J | < 1.0 U | 0.46 J | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.41 J | < 1.0 U | 0.47 J | 0.30 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-47 | 3/1/2006 | 2.2 | 1.8 | < 1.0 U | < 1.0 U | 7.2 | < 1.0 U | **78** | **50** | 0.28 J | 1.5 | < 1.0 U | < 2.0 U |
| | 9/19/2006 | 2.2 | 1.7 J | < 2.0 U | < 2.0 U | 9.5 | < 2.0 U | **64** | **44** | < 2.0 U | 1.4 J | < 2.0 U | < 4.0 U |
| | 11/30/2006 | 1.9 J | 1.7 J | < 2.0 U | < 2.0 U | 8.9 | < 2.0 U | **69** | **51** | < 2.0 U | 1.4 J | < 2.0 U | < 4.0 U |
| | 9/25/2007 | 2.2 J | 2.4 J | < 7.1 U | < 7.1 U | **170** | < 7.1 U | **71** | **53** | < 7.1 U | 4.6 J | < 7.1 U | < 1.0 U |
| | 10/1/2008 | 1.4 J | 2 J | < 5.0 U | < 5.0 U | **160** | < 5.0 U | **86** | **36** | < 5.0 U | 3.9 J | 1.9 J | < 1.0 U |
| | 11/13/2009 | 1.0 J | 2.4 J | < 2.5 U | < 2.5 U | 61 | < 2.5 U | **61** | **29** | < 2.5 U | 2.8 | 0.66 J | < 5.0 U |
| | 1/28/2010 | 0.85 J | 2.3 J | < 2.5 U | < 2.5 U | 51 | < 2.5 U | **60** | **24** | < 2.5 U | 2.5 | < 2.5 U | < 5.0 U |
| | 9/23/2010 | 0.77 J | 2.7 | < 1.0 U | < 1.0 U | 42 | < 1.0 U | **60** | **22** | < 1.0 U | 2.4 | 0.39 J | < 3.3 U |
| | 9/29/2011 | < 2.5 U | 2.9 | < 2.5 U | < 2.5 U | 34 | < 2.5 U | **52** | **18** | < 2.5 U | 2.3 J | < 2.5 U | < 5.0 U |
| | 9/6/2012 | < 2.5 U | 3.0 | < 2.5 U | < 2.5 U | 23 | < 2.5 U | **42** | **13** | < 2.5 U | 2.0 J | < 2.5 U | < 5.0 U |
| | 9/25/2013 | 0.65 J | 3.7 | < 1.0 U | < 1.0 U | 26 | < 1.0 U | **47** | **14** | < 1.0 U | 2.4 | 0.42 J | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 4.5 | < 1.0 U | < 1.0 U | 28 | < 1.0 U | **46** | **8.1** | < 1.0 U | 1.8 | < 1.0 U | < 3.3 U |
| | 11/4/2015 | < 1.7 U | 4.9 | < 1.7 U | < 1.0 U | 46 | < 1.7 U | **49** | **8.3** | < 1.7 U | 2.3 | < 1.7 U | < 3.3 U |
| | 8/24/2016 | < 2.0 U | 3.8 | < 2.0 U | < 2.0 U | 38 | < 2.0 U | **39** | 4.4 | < 2.0 U | 1.8 J | < 2.0 U | < 4.0 U |
| | 7/10/2019 | < 1.0 U | 5.2 | < 1.0 U | < 1.0 U | 29 | < 1.0 U | **40** | **9.3** | < 1.0 U | 0.81 J | 0.60 J | < 2.0 U |
| | 2/12/2020 | < 1.0 U | 0.70 J | < 1.0 U | < 1.0 U | 9.3 | < 1.0 U | 3.3 | 1.1 | < 1.0 U | < 1.0 U | 0.33 J | < 2.0 U |
| | 7/27/2020 | < 2.0 U | 2.7 | < 2.0 U | < 2.0 U | 38 | < 2.0 U | **33** | **10** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/5/2021 | 0.61 J | 1.0 | < 1.0 U | < 1.0 U | 26 | < 1.0 U | **29** | **17** | < 1.0 U | 0.59 J | < 1.0 U | < 2.0 U |
| | 11/10/2022 | 0.68 J | 0.93 J | < 1.0 U | < 1.0 U | 9.6 | < 1.0 U | **38** | **24** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2023 | < 1.0 U | 0.86 J | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | **24** | **13** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-48 | 3/1/2006 | 0.62 J | 0.71 J | < 1.0 U | < 1.0 U | 0.7 J | < 1.0 U | < 1.0 U | 2.1 | 0.25 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/30/2006 | 0.97 J | 0.72 J | < 1.0 U | < 1.0 U | 0.83 J | < 1.0 U | 0.26 J | 2.4 | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 7/10/2019 | < 1.0 U | 0.19 J | < 1.0 U | < 1.0 U | 0.89 J | < 1.0 U | **28** | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 2/12/2020 | 0.85 J | 1.4 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | **13** | **13** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/27/2020 | 0.57 J | 1.3 | < 1.0 U | < 1.0 U | 4.5 | < 1.0 U | **18** | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2021 | < 1.0 U | 0.74 J | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | **27** | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-49 | 3/1/2006 | 2.4 | 3.4 | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | 2.5 | **8.4** | 0.25 J | 0.66 J | < 1.0 U | < 2.0 U |
| | 11/30/2006 | 1.8 | 2.6 | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | 3.1 | **11** | < 1.0 U | 0.53 J | < 1.0 U | < 2.0 U |
| | 7/10/2019 | < 1.0 U | 0.21 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | 2.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/27/2020 | 1.2 | 0.75 J | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | **14** | **28** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/11/2021 | 0.67 J | 1.2 | < 1.0 U | < 1.0 U | 3.4 | < 1.0 U | **28** | **8.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-50 | 4/28/2006 | 2.4 J | 1.9 J | < 5.0 U | < 5.0 U | 5.2 | < 5.0 U | **180** | **120** | < 5.0 U | 1.6 J | < 5.0 U | < 1.0 U |
| | 9/19/2006 | 1.4 J | 1.5 J | < 5.6 U | < 5.6 U | 13 | < 5.6 U | **150** | **84** | < 5.6 U | 1.7 J | < 5.6 U | < 1.0 U |
| | 11/30/2006 | 1.6 J | 1.5 J | < 5.0 U | < 5.0 U | 34 | < 5.0 U | **140** | **86** | < 5.0 U | 1.5 J | < 5.0 U | < 1.0 U |
| | 9/25/2007 | 1.4 J | 1.9 J | < 5.9 U | < 5.9 U | **130** | < 5.9 U | **100** | **44** | < 5.9 U | 2.5 J | < 5.9 U | < 1.0 U |
| | 10/1/2008 | 1.6 J | 1.7 J | < 2.5 U | < 2.5 U | 13 | < 2.5 U | **82** | **54** | < 2.5 U | 0.68 J | < 2.5 U | < 5.0 U |
| | 11/13/2009 | 1.8 J | 1.3 J | < 5.0 U | < 5.0 U | 11 | < 5.0 U | **110** | **120** | < 5.0 U | < 5.0 U | < 5.0 U | < 1.0 U |
| | 1/28/2010 | 1.5 J | 1.2 J | < 5.0 U | < 5.0 U | 8.1 | < 5.0 U | **130** | **120** | < 5.0 U | < 5.0 U | < 5.0 U | < 1.0 U |
| | 9/23/2010 | 1.6 J | < 5.0 U | < 5.0 U | < 5.0 U | 4.0 J | < 5.0 U | **130** | **140** | < 5.0 U | 0.95 J | < 5.0 U | < 1.0 U |
| | 9/30/2011 | 1.7 J | 2.3 | < 2.0 U | < 2.0 U | 7.1 | < 2.0 U | **95** | **86** | < 2.0 U | 0.62 J | < 2.0 U | < 4.0 U |
| | 9/6/2012 | 2.7 J | < 5.0 U | < 5.0 U | < 5.0 U | 3.4 J | < 5.0 U | **84** | **63** | < 5.0 U | < 5.0 U | < 5.0 U | < 1.0 U |
| | 9/25/2013 | 2.5 | 3.5 | < 1.0 U | < 1.0 U | 5.7 | < 1.0 U | **73** | **40** | < 1.0 U | 0.29 J | 0.30 J | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-50 (continued) | 10/7/2014 | < 1.0 U | 7.1 | < 1.0 U | < 1.0 U | 5.1 | < 1.0 U | **39** | **5.5** | < 1.0 U | < 1.0 U | 1.8 | < 2.9 U |
| | 11/4/2015 | < 1.0 U | 4.0 | < 1.0 U | < 1.0 U | 5.6 | < 1.0 U | **26** | 4.0 | < 1.0 U | < 1.0 U | 1.7 | < 2.0 U |
| | 8/23/2016 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 5.1 | < 1.0 U | **14** | 4.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/10/2019 | < 1.0 U | 7.4 | < 1.0 U | < 1.0 U | 7.4 | < 1.0 U | 2.2 | 0.39 J | < 1.0 U | 0.20 J | 1.8 | < 2.0 U |
| | 2/12/2020 | < 1.0 U | 0.67 J | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | 3.6 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/27/2020 | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 7.0 | < 1.0 U | 1.9 | 0.75 J | < 1.0 U | < 1.0 U | 1.4 | < 2.0 U |
| | 10/5/2021 | < 1.0 U | 0.66 J | < 1.0 U | < 1.0 U | 0.95 J | < 1.0 U | 3.2 | 0.56 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2023 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | 0.54 J | < 1.0 U | **5.1** | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-51 | 4/28/2006 | 0.9 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.32 J | < 1.0 U | **6.7** | 4.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/30/2006 | 0.76 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | **6.6** | 5.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/27/2007 | 0.61 J | 0.23 J | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | **7.2** | 3.9 | 0.29 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/30/2008 | 0.6 J | 0.78 J | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | **9.3** | **7.7** | < 1.0 U | 0.70 J | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 1.9 | 1.8 | < 1.0 U | < 1.0 U | 2.8 | < 1.0 U | **46** | **64** | < 1.0 U | 0.30 J | < 1.0 U | < 2.0 U |
| | 10/6/2014 | 0.70 J | 1.7 J | < 2.0 U | < 2.0 U | 5.0 | < 2.0 U | **67** | **33** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/30/2015 | < 2.0 U | 2.8 | < 2.0 U | < 2.0 U | 6.5 | < 2.0 U | **63** | **16** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/25/2016 | 1.2 | 2.5 | < 1.0 U | < 1.0 U | 6.4 | < 1.0 U | **6.5** | **33** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/10/2019 | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 6.1 | < 1.0 U | **44** | **5.0** | < 1.0 U | 0.22 J | < 1.0 U | < 2.0 U |
| | 2/12/2020 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | **26** | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/27/2020 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | **25** | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2021 | 0.81 J | 1.2 | < 1.0 U | < 1.0 U | 3.9 | < 1.0 U | **25** | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/10/2022 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | **24** | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2023 | 0.75 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **24** | 0.86 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-52 | 4/28/2006 | 2.0 | 0.94 J | < 2.0 U | < 2.0 U | 1.9 J | < 2.0 U | **75** | **61** | < 2.0 U | 0.67 J | < 2.0 U | < 4.0 U |
| | 11/30/2006 | 1.3 J | 0.93 J | < 2.0 U | < 2.0 U | 2.7 | < 2.0 U | **67** | **47** | < 2.0 U | 0.76 J | < 2.0 U | < 4.0 U |
| | 9/26/2007 | 1.3 J | 1.5 J | < 2.5 U | < 2.5 U | 18 | < 2.5 U | **88** | **47** | < 2.5 U | 1.0 J | < 2.5 U | < 5.0 U |
| | 9/30/2008 | 1.9 J | 3.0 | < 2.5 U | < 2.5 U | 14 | < 2.5 U | **88** | **43** | < 2.5 U | < 2.5 U | < 2.5 U | < 5.0 U |
| | 11/12/2009 | 1.1 J | 1.1 J | < 2.5 U | < 2.5 U | 1.5 J | < 2.5 U | **94** | **43** | < 2.5 U | 0.83 J | < 2.5 U | < 5.0 U |
| | 1/27/2010 | 1.0 J | 1.0 J | < 4.0 U | < 4.0 U | 1.6 J | < 4.0 U | **94** | **42** | < 4.0 U | 0.99 J | < 4.0 U | < 8.0 U |
| | 9/22/2010 | 0.92 J | 0.94 J | < 3.3 U | < 3.3 U | 1.8 J | < 3.3 U | **90** | **50** | < 3.3 U | 0.74 J | < 3.3 U | < 6.7 U |
| | 9/29/2011 | < 4.0 U | 1.9 J | < 4.0 U | < 4.0 U | 4.2 | < 4.0 U | **73** | **38** | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 9/5/2012 | < 4.0 U | 4.1 | < 4.0 U | < 4.0 U | 7.9 | < 4.0 U | **66** | **29** | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 9/25/2013 | 0.47 J | 1.2 | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | **53** | **18** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **44** | **8.2** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/30/2015 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **32** | **5.8** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/25/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.28 J | < 1.0 U | **30** | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/10/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **15** | 0.83 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/27/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **15** | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/11/2021 | < 1.0 U | 0.76 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | **26** | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-55 | 9/14/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **7.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | < 1.0 U | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | < 1.0 U | **7.7** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/22/2010 | < 1.0 U | < 1.0 U | < 1.0 U | 0.23 J | < 1.0 U | < 1.0 U | **7.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.6 | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.3 | < 1.0 U | 0.34 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/15/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-57 | 9/14/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.21 J | 1.9 | < 1.0 U | 0.48 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 1/21/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-62(1) | 9/14/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **15** | < 1.0 U | 0.24 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 4/8/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **20** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **13** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-63 | 9/14/2006 | 2.3 J | 1.9 J | < 5.0 U | < 5.0 U | 5.6 | < 5.0 U | **160** | **120** | < 5.0 U | 1.4 J | < 5.0 U | < 1.0 U |
| | 12/1/2006 | 2.3 J | 1.9 J | < 4.0 U | < 4.0 U | 8.8 | < 4.0 U | **140** | **100** | < 4.0 U | 1.3 J | < 4.0 U | < 8.0 U |
| | 9/25/2007 | 2.7 J | 1.8 J | < 6.7 U | < 6.7 U | 5.0 J | < 6.7 U | **130** | **120** | < 6.7 U | < 6.7 U | < 6.7 U | < 1.0 U |
| | 10/1/2008 | 4.0 J | 2.2 J | < 5.0 U | < 5.0 U | 4.9 J | < 5.0 U | **140** | **92** | < 5.0 U | < 5.0 U | < 5.0 U | < 1.0 U |
| | 1/28/2010 | 2.0 J | < 5.7 U | < 5.7 U | < 5.7 U | 3.2 J | < 5.7 U | **150** | **140** | < 5.7 U | < 5.7 U | < 5.7 U | < 1.0 U |
| | 9/6/2012 | 3.2 J | 1.6 J | < 5.7 U | < 5.7 U | 2.2 J | < 5.7 U | **89** | **58** | < 5.7 U | < 5.7 U | < 5.7 U | < 1.0 U |
| | 9/25/2013 | 4.4 | 1.6 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | **81** | **48** | < 1.0 U | 0.33 J | < 1.0 U | < 2.0 U |
| | 10/7/2014 | 2.8 | 1.9 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | **53** | **20** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.9 U |
| | 11/4/2015 | 2.2 | 1.9 | < 1.7 U | < 1.7 U | 3.4 | < 1.7 U | **46** | **19** | < 1.7 U | < 1.7 U | < 1.7 U | < 3.3 U |
| | 8/24/2016 | 2.2 | 0.84 J | < 1.7 U | < 1.7 U | 1.2 J | < 1.7 U | **38** | 5.0 | < 1.7 U | < 1.7 U | < 1.7 U | < 3.3 U |
| | 7/10/2019 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | **12** | 3.7 | < 1.0 U | < 1.0 U | 0.31 J | < 2.0 U |
| | 2/11/2020 | 1.0 J | < 2.0 U | < 2.0 U | < 2.0 U | 5.3 | < 2.0 U | **51** | 1.5 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 7/28/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | **37** | 2.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/5/2021 | 0.59 J | 0.70 J | < 1.0 U | < 1.0 U | 0.59 J | < 1.0 U | **11** | 0.47 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/10/2022 | 1.9 | 0.66 J | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | **13** | 2.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/13/2023 | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 5.0 | 0.52 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-64 | 9/14/2006 | 1.8 J | 1.8 J | < 2.5 U | < 2.5 U | 16 | < 2.5 U | **77** | **34** | < 2.5 U | 1.6 J | < 2.5 U | < 5.0 U |
| | 12/1/2006 | 2.1 J | 2.1 J | < 2.5 U | < 2.5 U | 42 | < 2.5 U | **85** | **35** | < 2.5 U | 2 J | < 2.5 U | < 5.0 U |
| | 9/25/2007 | < 3.3 U | 2.7 J | < 3.3 U | < 3.3 U | **74** | < 3.3 U | **11** | 4.5 | < 3.3 U | 6.6 | **18** | < 6.7 U |
| | 10/1/2008 | 0.55 J | 2.7 | < 1.0 U | < 1.0 U | 15 | < 1.0 U | **31** | **14** | < 1.0 U | 2.3 | **2.3** | < 2.0 U |
| | 9/26/2013 | 0.71 J | 4.2 | < 1.0 U | < 1.0 U | 44 | < 1.0 U | **41** | **31** | < 1.0 U | 2.8 | **5.8** | < 2.0 U |
| | 7/10/2019 | 0.65 J | 2.5 | < 1.0 U | < 1.0 U | 40 | < 1.0 U | **15** | **31** | < 1.0 U | 0.87 J | 1.3 | < 2.0 U |
| | 2/11/2020 | < 2.0 U | 2.1 | < 2.0 U | < 2.0 U | 57 | < 2.0 U | **24** | **24** | < 2.0 U | 0.80 J | **2.7** | < 4.0 U |
| | 7/28/2020 | < 1.0 UJ | 0.58 J | < 1.0 U | < 1.0 U | 29 | < 1.0 U | **14** | 4.3 | < 1.0 U | 0.46 J | 1.5 | < 2.0 U |
| | 10/5/2021 | < 1.0 U | 0.75 J | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | **7.9** | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/9/2022 | 0.59 J | 0.72 J | < 1.0 U | < 1.0 U | 3.2 | < 1.0 U | **7.5** | 0.87 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/13/2023 | < 1.0 U | 0.50 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 3.2 | 0.64 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-65S | 5/2/2007 | 0.62 J | 0.78 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **11** | **8.0** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 1/21/2008 | 0.58 J | 0.54 J | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | **13** | **7.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **8.7** | 3.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | **11** | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 1/27/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.22 J | < 1.0 U | **13** | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/22/2010 | < 1.0 U | 0.34 J | < 1.0 U | < 1.0 U | 0.63 J | < 1.0 U | **9.9** | 2.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 0.16 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **7.8** | 2.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.5** | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.6** | 0.82 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.4** | 0.24 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/5/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/17/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2018 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-77S | 9/27/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/21/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-78 | 10/23/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **8.9** | < 1.0 U | 0.23 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 1/21/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/2/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | < 1.0 U | < 1.0 U | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | 0.18 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **9.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **9.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **7.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/25/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-79 | 10/23/2007 | 0.66 J | 0.24 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/2/2008 | 0.65 J | < 1.0 U | < 1.0 U | < 1.0 UJ | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 0.72 J | 0.31 J | < 1.0 U | 0.48 J | 0.28 J | < 1.0 UJ | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/22/2010 | 0.51 J | 0.23 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 0.22 J | < 1.0 U | < 1.0 U | 0.19 J | < 1.0 U | 0.34 J | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | 0.72 J | 0.94 J | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | 0.29 J | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.88 J | 1.1 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | 0.31 J | 3.9 | < 1.0 U | 0.42 J | < 1.0 U | < 2.0 U |
| | 10/6/2014 | 1.0 | 3.2 | < 1.0 U | < 1.0 U | 8.4 | < 1.0 U | 1.0 | **23** | < 1.0 U | 0.43 J | < 1.0 U | < 2.0 U |
| | 11/4/2015 | 0.71 J | 2.2 | < 1.4 U | < 1.4 U | 7.4 | < 1.4 U | 0.97 J | **31** | < 1.4 U | < 1.4 U | < 1.4 U | < 2.9 U |
| | 10/27/2016 | 0.70 J | 2.6 | < 1.0 U | < 1.0 U | 7.4 | < 1.0 U | 2.1 | **36** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/1/2017 | 0.60 J | 2.3 | < 1.0 U | < 1.0 U | 5.4 | < 1.0 U | 4.3 | **34** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/23/2018 | 0.39 J | 1.7 | < 1.0 U | < 1.0 U | 4.5 | < 1.0 U | **13** | **21** | < 1.0 U | < 1.0 U | 0.27 J | < 2.0 U |
| | 10/6/2021 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | **29** | **7.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-80 | 10/23/2007 | < 1.0 U | 0.38 J | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | 0.68 J | 4.0 | < 1.0 U | 0.21 J | < 1.0 U | < 2.0 U |
| | 9/22/2008 | < 1.0 U | 0.39 J | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | 0.93 J | **5.4** | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 0.24 J | 0.55 J | < 1.0 U | < 1.0 U | 3.2 | < 1.0 U | 1.6 | **9.8** | < 1.0 U | 0.25 J | < 1.0 U | < 2.0 U |
| | 4/9/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.85 J | < 1.0 U | 1.9 | **6.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/21/2010 | < 1.0 U | 0.30 J | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | 2.6 | **6.0** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 0.47 J | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | 4.1 | **5.9** | < 1.0 U | 0.24 J | < 1.0 U | < 2.0 U |
| | 9/5/2012 | 0.43 J | 1.7 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | **5.2** | **13** | < 1.0 U | 0.30 J | < 1.0 U | < 2.0 U |
| | 9/25/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.7** | 4.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | 0.50 J | 0.66 J | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | 3.5 | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 0.96 J | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | **18** | **15** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/27/2016 | 0.54 J | 0.60 J | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | **20** | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/1/2017 | 0.32 J | 0.38 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **20** | **7.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/23/2018 | < 1.0 U | 0.54 J | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | **18** | **5.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 3/27/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.76 J | < 1.0 U | **15** | 3.6 B | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/30/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.92 J | < 1.0 U | **12** | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 3.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-81 | 10/23/2007 | 0.22 J | 0.93 J | < 1.0 U | < 1.0 U | 0.98 J | < 1.0 U | < 1.0 U | 0.61 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 4/9/2010 | 0.23 J | 0.92 J | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/31/2017 | 0.26 J | 1.1 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/23/2018 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | 0.19 J | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| MW-5 | 7/31/2017 | < 1.0 U | 0.89 J | < 1.0 U | < 1.0 U | 1.1 J | < 1.0 U | < 1.0 U | 1.7 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/23/2018 | < 1.0 U | 0.64 J | < 1.0 U | < 1.0 U | 0.92 J | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | <1.0 U | < 1.0 U | < 2.0 U |
| RMW-95 | 8/1/2017 | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | 0.48 J | **5.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/23/2018 | < 1.0 U | 0.57 J | < 1.0 U | 0.13 J | 0.38 J | 0.13 J | 3.4 | 1.6 | 0.33 J | < 1.0 U | < 1.0 U | 0.19 J |
| | 3/27/2019 | 0.43 J | 0.35 J | < 1.0 U | < 1.0 U | 0.24 J | < 1.0 U | 2.6 | 0.63 JB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/30/2020 | 0.48 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **8.4** | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **8.9** | 0.69 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-96 | 8/2/2017 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.95 J | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/23/2018 | < 1.0 U | 0.28 J | < 1.0 U | < 1.0 U | 0.80 J | < 1.0 U | **7.0** | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 3/27/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.43 J | < 1.0 U | 2.0 | 0.44 JB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/30/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-97 | 8/1/2017 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.62 J | < 1.0 U | 3.2 | 0.63 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 7/23/2018 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.93 J | < 1.0 U | 4.7 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 3/27/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.8 | 0.26 JB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/30/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.9 | 0.57 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-98 | 7/10/2019 | 1.2 | 1.6 | < 1.0 U | < 1.0 U | 6.8 | < 1.0 U | **35** | **8.5** | < 1.0 U | 0.29 J | 0.27 J | < 2.0 U |
| | 2/14/2020 | 2.0 | 0.45 J | < 2.0 U | < 2.0 U | 1.2 J | < 2.0 U | **62** | 3.4 | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 7/28/2020 | 0.55 J | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **42** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/6/2021 | 1.1 J | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **50** | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |

**Appendix D Table 1**
**Groundwater VOC Analytical Results for the Upper Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (µg/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes (total) |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| RMW-99 | 7/10/2019 | 0.77 J | 2.1 | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | **35** | 2.3 | < 1.0 U | < 1.0 U | 0.26 J | < 2.0 U |
| | 2/14/2020 | 1.2 J | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **52** | 1.7 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 7/28/2020 | 0.51 J | < 2.0 U | < 2.0 U | < 2.0 U | 1.8 J | < 2.0 U | **46** | 0.73 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 10/6/2021 | 0.87 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **45** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2023 | 0.67 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **25** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-100 | 7/8/2019 | < 1.0 U | 0.82 J | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.50 J | < 2.0 U |
| | 2/11/2020 | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | 0.67 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/27/2020 | < 1.0 U | 0.42 J | < 1.0 U | < 1.0 U | 0.67 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/5/2021 | < 1.0 U | 0.69 J | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-101 | 7/8/2019 | < 1.0 U | 1.3 | < 1.0 U | 0.13 J | 6.7 | < 1.0 U | 0.49 J | 1.9 | < 1.0 U | 0.30 J | 0.61 J | < 2.0 U |
| | 2/11/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.35 J | 0.14 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/27/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/5/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2023 | < 1.0 U | 0.79 J | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | 0.46 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-102 | 7/8/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **14** | 0.39 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 2/11/2020 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 10 | < 1.0 U | < 1.0 U | 0.63 J | < 1.0 U | 0.58 J | 0.30 J | < 2.0 U |
| | 7/28/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **12** | 0.37 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/5/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **8.7** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2023 | < 1.0 U | 0.92 J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | **7.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| TW-2 | 9/26/2000 | 4.5 | 27.8 | < 1.0 U | < 1.0 U | 23 | 10 | 5.0 | **43** | < 1.0 U | 2.9 | **5.9** | 3.2 |
| | 11/9/2001 | 3.9 | 20 | < 2.0 U | < 2.0 U | 8.8 | 0.38 J | **8.5** | **48** | < 2.0 U | 2.4 | **2.7** | < 2.0 U |
| | 9/20/2002 | 2.2 | 9.0 | < 2.0 U | < 2.0 U | 26 | < 2.0 U | **5.9** | **70** | < 2.0 U | 1.4 | **2.5** | < 2.0 U |
| | 10/2/2003 | 0.66 J | 5.7 | < 1.0 U | 1.5 | 8.3 | 0.86 J | 4.7 | **24** | < 1.0 U | 0.59 | 1.4 | < 1.0 U |
| | 9/14/2004 | < 1.0 U | 22 | < 1.0 U | 2.9 | 5.5 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | 2.0 | **2.5** | < 1.0 U |
| | 10/20/2005 | < 1.0 U | 12 | < 1.0 U | 2.5 | 5.3 | 12 | < 1.0 U | < 1.0 U | 3.4 | 1.4 | **4.4** | 5.0 |
| | 9/19/2006 | 0.55 J | 3.4 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | **7.0** | **32** | < 1.0 U | 0.38 J | 0.27 J | < 2.0 U |
| | 9/18/2007 | < 1.0 U | 1.7 | < 1.0 U | 0.81 J | 7.9 | < 1.0 U | 1.9 | **24** | < 1.0 U | 0.25 J | 0.97 J | < 2.0 U |
| | 9/24/2008 | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 5.2 U | 0.76 J | 1.4 | **7.5** | < 1.0 U | 0.36 J | 1.0 | < 2.0 U |
| | 11/11/2009 | < 2.5 U | 1.1 J | < 2.5 U | < 2.5 U | 1.6 J | < 2.5 U | < 2.5 U | 1.1 J | < 2.5 U | < 2.5 U | < 2.5 U | < 5.0 U |
| | 9/28/2010 | < 1.0 U | 2.0 | < 1.0 U | 1.2 | 2.1 | < 1.0 U | 0.52 J | 1.6 | < 1.0 U | 0.30 J | 0.71 J | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 1.8 | < 1.0 U | 1.2 | 5.7 | 0.45 J | 1.2 | **5.9** | < 1.0 U | 0.25 J | 1.1 | < 2.0 U |
| | 9/6/2012 | < 1.0 U | 1.3 | < 1.0 U | 0.51 J | 3.6 | < 1.0 U | < 1.0 U | 0.26 J | 0.18 J | 0.23 J | 0.56 J | < 2.0 U |
| TW-2 (continued) | 9/25/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/9/2014 | < 1.0 U | 0.48 J | < 1.0 U | < 1.0 U | 0.56 J | < 1.0 U | < 1.0 U | < 1.0 UB | < 1.0 U | < 1.0 U | 0.64 J | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.29 J | < 2.0 U |
| | 8/17/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| WSU-22 | 3/1/2006 | 3.1 | 1.7 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | **110** | **88** | < 1.0 U | 1.2 J | < 1.0 U | < 3.3 U |
| WSU-23 | 3/1/2006 | 2.5 | 0.97 J | < 1.0 U | < 1.0 U | 0.44 J | < 1.0 U | < 1.0 U | **7.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/30/2006 | 2.1 | 0.73 J | 0.2 J | < 1.0 U | 0.46 J | < 1.0 U | < 1.0 U | **6.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/10/2019 | 1.7 | 0.86 J | < 1.0 U | < 1.0 U | 0.77 J | < 1.0 U | **28** | 3.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 2/13/2020 | 1.4 | 0.62 J | < 1.0 U | < 1.0 U | 0.65 J | < 1.0 U | **5.3** | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/28/2020 | 1.3 J | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **73** | 3.5 J | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 10/5/2021 | 1.1 J | < 2.0 U | < 2.0 U | < 2.0 U | 1.1 J | < 2.0 U | **46** | 4.8 | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 9/13/2023 | 1.2 | 0.64 J | < 1.0 U | < 1.0 U | 0.86 J | < 1.0 U | **37** | **5.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| WSU-24 | 9/23/1999 | 2.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.9 | **17** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 9/26/2000 | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | 1.2. | **17** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/9/2001 | 2.4 | 0.81 J | < 1.0 U | < 1.0 U | 4.0 | < 1.0 U | 1.6 | **18** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/24/2002 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.2 | **13** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/22/2003 | 0.67 J | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.0 | **7.9** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/16/2004 | 0.58 J | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.3 | **8.0** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/20/2005 | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | **11** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2006 | 0.65 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.81 J | **10** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/19/2007 | 0.66 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.89 J | **7.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2008 | 0.62 J | 0.85 J | < 1.0 U | < 1.0 U | 2.4 J | < 1.0 U | 1.7 | **12 J** | < 1.0 U | 0.35 J | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.23 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **13** | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 12/4/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **7.2** | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **8.4** | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/16/2021 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) - Well abandoned.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
B - Compound was found in the blank and sample.
**BOLD** - Result above MCL.
cis-1,2-DCE - cis-1,1-Dichloroethene.
F1 - MS and/or MSD recovery exceeds control limits.
F2 - MS/MSD Relative Percent Difference exceeds control limits.
J - Value is estimated.
J- - Value is estimated. Continuing calibration verification (CCV) idicated a decrease in sensitivity due to either opening CCV percent difference (%D) greater than 20% or closing CCV %D >50%.
K - The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high.
MCL - Maximum Contaminant Level.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.
U - Constituent not detected above laboratory reporting limit shown.
UB - Analyte considered non-detect at listed value due to associated blank contamination.
UJ - The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
µg/L - Micrograms per Liter.
VOCs - Volatile Organic Compounds.
* - LCS or LCSD is outside acceptable limits.

**Appendix D Table 2**
**Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| **Upgradient of the Site** | | | | | | | | | | | | | |
| HR-12 | 9/14/1999 | < 1.0 UJ | 2.7 | < 1.0 U | 1.2 | 1.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U |
| | 9/28/2000 | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **2.5** | < 1.0 U |
| | 11/14/2001 | < 1.0 U | 3.6 | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.23 | **3.8** | < 1.0 U |
| | 9/26/2002 | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | 1.7 | < 1.0 U |
| | 9/18/2003 | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | 1.6 | < 1.0 U |
| | 9/21/2004 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | 1.1 | < 1.0 U |
| | 10/24/2005 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.36 J | < 2.0 U |
| | 9/26/2006 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/19/2007 | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2008 | 0.39 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | **5.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/13/2009 | < 1.0 U | 2 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2010 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 2.8 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.24 J | < 1.0 U | < 2.0 U |
| | 9/7/2012 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 0.24 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2014 | < 1.0 U | 3.4 | < 1.0 U | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | < 1.0 UB | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 12/8/2015 | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.31 J | < 2.0 U |
| | 8/16/2016 | < 1.0 U | 3.1 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| RMW-88 | 9/26/2012 | < 1.4 U | 17 | < 1.4 U | < 1.4 U | 43 | < 1.4 U | < 1.4 U | < 1.4 U | 0.21 J | 1.5 | 1.1 J | < 2.9 U |
| | 9/27/2013 | < 1.0 U | 35 | < 1.0 U | < 1.0 U | **75** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.5 | 2.0 | < 2.0 U |
| | 10/8/2014 | < 2.5 U | 32 | < 2.5 U | < 2.5 U | **78** | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | 4.3 | 1.2 J | < 5.0 U |
| | 8/26/2015 | < 1.0 U | 30 | < 1.0 U | < 1.0 U | 60 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.8 | **3.3** | < 2.0 U |
| | 10/30/2015 | < 2.0 U | 27 | < 2.0 U | < 2.0 U | 61 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 3.2 | 1.5 J | < 4.0 U |
| | 8/26/2016 | < 2.0 U | 24 | < 2.0 U | < 2.0 U | 55 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 3.2 | < 2.0 U | < 4.0 U |
| **On-Site** | | | | | | | | | | | | | |
| 31 | 9/29/2000 | < 1.0 U | 7.4 | < 1.0 U | < 1.0 U | 8.4 | < 1.0 U | < 1.0 U | **12.9** | < 1.0 U | < 1.0 U | **4.4** | < 1.0 U |
| | 11/15/2001 | < 1.0 U | 3.1 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | **5.1** | < 1.0 U | < 0.50 U | **2.5** | < 1.0 U |
| 39 | 9/27/2002 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | < 0.50 U | 0.51J | < 1.0 U |
| | 9/24/2003 | < 1.0 U | 0.58 J | < 1.0 U | < 1.0 U | 0.71 | < 1.0 U | < 1.0 U | 0.89 J | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| GM-7R | 9/28/1999 | 4.2 | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | **76.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 8/25/2015 | < 1.0 U | 0.86 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | **53** | **23** | < 1.0 U | 0.47 J | 0.60 J | < 2.0 U |
| GM-19D | 9/28/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | **13.5** | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U |
| | 10/2/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | < 1.0 U | 2.9 | < 1.0 U | < 1.0 U | **15.7** | < 1.0 U |
| | 11/14/2001 | 0.18 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.92 | < 1.0 U | < 1.0 U | 3.7 | 0.38J | < 0.50 U | **13** | < 1.0 U |
| | 9/26/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.81 | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | < 0.50 U | 0.36 J | < 1.0 U |
| | 9/25/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 0.24 J | < 1.0 U | < 0.50 U | **17** | < 1.0 U |
| | 9/20/2004 | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | 2 | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | < 0.50 U | **18** | < 1.0 U |
| | 10/25/2005 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | **15** | < 2.0 U |
| | 9/26/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | **18** | < 2.0 U |
| | 9/17/2007 | 0.25 J | < 1.0 U | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | 3.2 | < 1.0 U | < 1.0 U | **16** | < 2.0 U |
| | 9/23/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **9.8** | < 2.0 U |
| | 11/11/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | **14** | < 2.0 U |
| | 9/27/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 0.98 J | < 1.0 U | < 1.0 U | **9.9** | < 2.0 U |
| | 9/29/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | **8.6** | < 2.0 U |
| | 9/6/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | < 1.0 U | **7.4** | 0.82 J | < 1.0 U | **2.4** | 0.32 J |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.7 | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | **7.8** | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 0.27 J | < 1.0 U | < 1.0 U | 5.8 | < 1.0 U | 0.36 J | 5.0 | < 1.0 U | < 1.0 U | **4.1** | < 2.0 U |
| | 11/4/2015 | < 2.0 U | 3 | < 2.0 U | < 2.0 U | 39 | < 2.0 U | 11 | **69** | < 2.0 U | 1.0 J | **1.0 J** | < 4.0 U |
| | 8/16/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | 0.62 J | 4.9 | < 1.0 U | < 1.0 U | **6.2** | < 2.0 U |
| GM-39 | 12/10/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.18 J | < 0.50 U | 1.3 | < 1.0 U |
| | 9/20/2004 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | 1.8 | < 1.0 U |
| | 10/24/2005 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.77 J | < 2.0 U |
| | 9/27/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 2.0 U |
| | 9/26/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 19 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.23 J | 1.6 | < 2.0 U |
| | 10/1/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.67 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **3.2** | < 2.0 U |
| | 9/27/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.68 J | 0.63 J | < 1.0 U | < 1.0 U | 1.5 | < 2.0 U |
| GM-40 | 12/10/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | **3.1** | < 1.0 U |
| | 9/20/2004 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | **3.2** | < 1.0 U |
| | 10/25/2005 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **2.9** | < 2.0 U |
| | 9/26/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **3.9** | < 2.0 U |
| | 9/25/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **4.0** | < 2.0 U |
| | 9/30/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **3.6** | < 2.0 U |
| GM-41 | 12/10/2003 | < 11 U | < 11 U | < 11 U | < 1.0 U | 10 | < 11 U | < 11 U | **320** | < 11 U | < 5.6 U | < 11 U | < 11 U |
| | 9/21/2004 | < 6.2 U | < 6.2 U | < 6.2 U | < 6.2 U | 24 | < 6.2 U | < 6.2 U | **180** | < 6.2 U | < 3.1 U | < 6.2 U | < 6.2 U |
| | 10/24/2005 | < 10 U | < 10 U | < 10 U | < 10 U | 16 | < 10 U | < 10 U | **250** | < 10 U | < 10 U | < 10 U | < 20 U |
| | 9/18/2006 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | 11 | < 4.0 U | < 4.0 U | **210** | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 5/3/2007 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | 15 | < 6.7 U | < 6.7 U | **170** | < 6.7 U | < 6.7 U | **2.4 J** | < 13 U |
| | 9/20/2007 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | 17 | < 6.7 U | < 6.7 U | **230** | < 6.7 U | 1.4 J | 1.9 J | < 13 U |
| | 9/26/2008 | < 7.1 U | < 7.1 U | < 7.1 U | < 7.1 U | 11 | < 7.1 U | < 7.1 U | **180** | < 7.1 U | < 7.1 U | < 7.1 U | < 14 U |
| | 9/27/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 12 | < 1.0 U | < 1.0 U | **79** | < 1.0 U | 0.89 J | 1.9 | < 2.0 U |
| GM-42 | 12/9/2003 | < 1.0 U | 0.46 J | < 1.0 U | < 1.0 U | 11 | < 1.0 U | 0.27 J | 0.37 J | < 1.0 U | 0.34 J | 1.0 | < 1.0 U |
| | 9/20/2004 | < 1.0 U | 0.70 J | 0.25 J | < 1.0 U | 16 | < 1.0 U | < 1.0 U | 0.43 J | < 1.0 U | 0.44 J | 0.92 J | < 1.0 U |
| | 10/25/2005 | < 1.0 U | 0.64 J | 0.21 J | < 1.0 U | 17 | < 1.0 U | 0.19 J | 0.85 J | < 1.0 U | 0.59 J | 0.56 J | < 2.0 U |
| | 9/26/2006 | < 1.0 U | 0.50 J | < 1.0 U | < 1.0 U | 14 | < 1.0 U | < 1.0 U | 0.64 J | < 1.0 U | 0.44 J | 0.45 J | < 2.0 U |
| | 9/25/2007 | < 1.0 U | 0.67 J | < 1.0 U | < 1.0 U | 18 | < 1.0 U | < 1.0 U | 2.2 | 0.18 J | 0.69 J | 0.44 J | < 2.0 U |
| | 9/30/2008 | < 1.0 U | 0.66 J | 0.53 J | < 1.0 U | 20 | < 1.0 U | < 1.0 U | **9.9** | < 1.0 U | 0.89 J | 0.31 J | < 2.0 U |
| | 9/6/2012 | < 1.0 U | 0.41 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.25 J | **6.4** | < 2.0 U |

**Appendix D Table 2**
**Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-54 | 9/14/2006 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | **180** | 3.2 J | < 6.7 U | < 6.7 U | < 6.7 U | < 13 U |
| | 5/2/2007 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **160** | 2.9 J | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| | 9/20/2007 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **150** | 2.4 J | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| | 9/30/2008 | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | **190** | 2.5 J | < 5.7 U | < 5.7 U | < 5.7 U | < 11 U |
| | 11/13/2009 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **120** | 2.9 J | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| | 1/28/2010 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | **120** | 2.4 J | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| | 9/23/2010 | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | **92** | 2.2 J | < 2.5 U | < 2.5 U | < 2.5 U | < 5.0 U |
| | 9/29/2011 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **83** | 2.6 J | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 9/7/2012 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | **64** | 2.8 J | < 4.0 U | < 4.0 U | < 4.0 U | < 8.0 U |
| | 9/26/2013 | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **69** | 2.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2014 | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | **66** | < 1.7 UB | < 1.7 U | < 1.7 U | < 1.7 U | < 3.3 U |
| | 11/3/2015 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **62** | 1.3 J | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 8/18/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **61** | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-58 | 9/14/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.73 J | < 1.0 U | 4.4 | 0.72 J | 0.4 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/30/2006 | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | **85** | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 6.7 U |
| | 5/3/2007 | < 2.9 U | < 2.9 U | < 2.9 U | < 2.9 U | < 2.9 U | < 2.9 U | **82** | < 2.9 U | < 2.9 U | < 2.9 U | < 2.9 U | < 5.7 U |
| | 9/20/2007 | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | **69** | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 6.7 U |
| | 9/26/2008 | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | **80** | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | < 5.0 U |
| | 9/27/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **34** | 0.41 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-61 | 9/15/2006 | 0.5.0 J | 2.2 | < 1.7 U | < 1.7 U | 2.6 | < 1.7 U | **20** | **36** | 0.44 J | < 1.7 U | < 1.7 U | < 3.3 U |
| | 9/26/2007 | 0.59 J | 1.6 J | < 1.7 U | < 1.7 U | 3.9 | < 1.7 U | **28** | **56** | < 1.7 U | < 1.7 U | < 1.7 U | < 3.3 U |
| | 10/1/2008 | < 1.0 U | 0.94 J | 0.19 J | < 1.0 U | 20 | < 1.0 U | **13** | **23** | < 1.0 U | 0.92 J | 0.75 J | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 17 | < 1.0 U | **7.2** | **5.2** | < 1.0 U | 1.1 | 1.2 | < 2.0 U |
| | 8/26/2015 | < 1.0 U | 3.3 | < 1.0 U | < 1.0 U | 25 | < 1.0 U | **32** | **12** | < 1.0 U | 1.5 | 0.45 J | < 2.0 U |
| GM-67D | 5/3/2007 | 0.59 J | 3.0 | 0.36 J | < 1.7 U | 23 | < 1.7 U | **54** | **45** | < 1.7 U | 0.83 J | < 1.7 U | < 3.3 U |
| | 10/10/2014 | 1.2 J | 3.7 | < 3.3 U | < 3.3 U | **120** | < 3.3 U | 0.84 J | **15.0** | < 3.3 U | 2.6 J | **3.5** | < 6.7 U |
| | 11/4/2015 | 2.5 | 6.8 | 1.8 | < 1.0 U | **140 F1K** | < 1.0 U | 1.7 | **76** | < 1.0 U | 4.6 | 0.70 J | < 2.0 U |
| GM-68D | 5/4/2007 | < 50 U | < 50 U | < 50 U | < 50 U | < 50 U | < 50 U | **1500** | **750** | < 50 U | < 50 U | < 50 U | < 100 U |
| | 10/3/2008 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | 14 | < 5.0 U | **190** | **46** | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| | 11/16/2009 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 4.5 | < 2.0 U | **130 J** | **35** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| | 9/29/2010 | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | 3.0 J | < 3.3 U | **100** | **22** | < 3.3 U | < 3.3 U | < 3.3 U | < 6.7 U |
| | 9/30/2011 | < 1.7 U | < 1.7 U | < 1.7 U | < 1.7 U | 1.5 J | < 1.7 U | **62** | **13** | < 1.7 U | < 1.7 U | < 1.7 U | < 3.3 U |
| | 9/7/2012 | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | < 3.3 U | **49** | **6.9** | < 3.3 U | < 3.3 U | < 3.3 U | < 6.7 U |
| | 9/26/2013 | 0.47 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.77 J | < 1.0 U | **45** | **5.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/10/2014 | 0.71 J | < 1.4 U | < 1.4 U | < 1.4 U | 1.1 J | < 1.4 U | **36** | 3.7 | < 1.4 U | < 1.4 U | < 1.4 U | < 2.9 U |
| | 11/3/2015 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **30** | 2.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/17/2016 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **31** | 2.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-69 | 5/3/2007 | < 12 U | 8.7 J | < 12 U | < 12 U | 29 | < 12 U | **6.5 J** | **300** | < 12 U | < 12 U | < 12 U | < 24 U |
| GM-70 | 5/3/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-73 | 10/23/2007 | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | < 6.7 U | **160** | **22** | < 6.7 U | < 6.7 U | < 6.7 U | < 13 U |
| GM-74D | 9/27/2007 | < 8.0 U | < 8.0 U | < 8.0 U | < 8.0 U | < 8.0 U | < 8.0 U | **250** | **130** | < 8.0 U | < 8.0 U | < 8.0 U | < 16 U |
| | 4/9/2010 | < 2.5 U | < 2.5 U | < 2.5 U | < 2.5 U | 8.0 | < 2.5 U | **98** | **50** | < 2.5 U | < 2.5 U | < 2.5 U | < 5.0 U |
| | 8/24/2015 | 0.98 J | < 1.0 U | < 1.0 U | < 1.0 U | 3.0 | < 1.0 U | **26** | **5.3** | < 1.0 U | < 1.0 U | 1.3 | < 2.0 U |
| GM-75D | 9/26/2007 | < 50 U | < 50 U | < 50 U | < 50 U | 24 J | < 50 U | **470** | **1700 J** | < 50 U | < 50 U | < 50 U | < 100 U |
| | 10/6/2008 | < 33 U | < 33 U | < 33 U | < 33 U | **120** | < 33 U | **220** | **750** | < 33 U | < 33 U | < 33 U | < 67 U |
| | 11/16/2009 | < 5.0 U | < 5.0 U | < 5.0 U | < 5.0 U | 15 | < 5.0 U | **320** | **210** | < 5.0 U | < 5.0 U | < 5.0 U | < 10 U |
| | 4/8/2010 | < 9.1 U | < 9.1 U | < 9.1 U | < 9.1 U | 19 | < 9.1 U | **320** | **200** | < 9.1 U | < 9.1 U | < 9.1 U | < 18 U |
| | 9/29/2010 | < 9.1 U | < 9.1 U | < 9.1 U | < 9.1 U | 12 | < 9.1 U | **260** | **190** | < 9.1 U | < 9.1 U | < 9.1 U | < 18 U |
| | 9/30/2011 | < 4.0 U | < 4.0 U | < 4.0 U | < 4.0 U | 12 | < 4.0 U | **200** | **180** | < 4.0 U | < 4.0 U | **2.1 J** | < 8.0 U |
| | 9/7/2012 | < 11 U | < 11 U | < 11 U | < 11 U | 31 | < 11 U | **150** | **150** | < 11 U | < 11 U | **4.7 J** | < 22 U |
| | 9/27/2013 | < 1.0 U | 0.40 J | 0.28 J | < 1.0 U | 25 | < 1.0 U | **180** | **180** | < 1.0 U | 0.58 J | **3.2** | < 2.0 U |
| | 12/4/2014 | < 5.7 U | < 5.7 U | < 5.7 U | < 5.7 U | 11 | < 5.7 U | **190** | **180** | < 5.7 U | < 5.7 U | < 5.7 U | < 11 U |
| | 12/8/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 22 | < 1.0 U | **140** | **150** | < 1.0 U | 0.38 J | 0.37 J | < 2.0 U |
| | 8/24/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 9.6 | < 2.0 U | **200** | **220** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| GM-76D | 9/23/2007 | < 1.0 U | 0.30 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.63 J | 2.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/9/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.24 J | < 1.0 U | **35** | **8.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/24/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.36 J | < 1.0 U | **27** | **6.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | **49** | **6.9** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| GM-82 | 2/26/2008 | < 2.0 U | 2.3 | < 2.0 U | < 2.0 U | 47 | < 2.0 U | **60** | **91** | < 2.0 U | 1.9 J | < 2.0 U | < 4.0 U |
| | 10/2/2008 | 1.0 J | 2.4 J | 0.64 J | < 3.3 U | 46 | < 3.3 U | **51** | **100** | < 3.3 U | 2.0 J | < 3.3 U | < 6.7 U |
| | 9/26/2013 | 0.49 J | 1.4 | 0.60 J | < 1.0 U | 41 | < 1.0 U | **20** | **56** | < 1.0 U | 1.3 | **7.4** | < 2.0 U |
| | 12/11/2015 | < 2.0 U | 1.5 J | < 2.0 U | < 2.0 U | 30 | < 2.0 U | **23** | **57** | < 2.0 U | 1.2 J | 0.63 J | < 4.0 U |
| GM-83D | 2/26/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.28 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | < 2.0 U |
| | 10/2/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | 0.30 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | < 2.0 U |
| | 11/11/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **2.1** | < 2.0 U |
| | 9/22/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.31 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | < 2.0 U |
| | 9/7/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | < 2.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.9 | < 2.0 U |
| | 10/9/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **2.6** | < 2.0 U |
| | 10/30/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **2.0** | < 2.0 U |
| | 8/19/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **3.1** | < 2.0 U |

**Appendix D Table 2**
**Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-84 | 2/26/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.5** | 0.57 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/2/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | < 1.0 U | < 1.0 U | < 1.0 U | **6.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/16/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 1/27/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/23/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **5.7** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/7/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/30/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/17/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| HR-13 | 9/15/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/14/2001 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/30/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/16/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/21/2004 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/25/2005 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/26/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| HR-14 | 9/15/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/30/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/26/2015 | < 1.0 U | 4.0 | < 1.0 U | < 1.0 U | 11 | < 1.0 U | < 1.0 U | **6.0** | < 1.0 U | < 1.0 U | 0.40 J | < 2.0 U |
| HR-15 | 9/15/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | < 1.0 U |
| | 9/29/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.8 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | < 1.0 U |
| | 11/14/2001 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.86 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/30/2002 | < 1.0 U | < 1.0 UJ | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/17/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 0.29 J | < 1.0 U | < 0.50 U | **14** | < 1.0 U |
| | 9/21/2004 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | 0.38 J | < 1.0 U | < 0.50 U | **19** | < 1.0 U |
| | 10/25/2005 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 0.40 J | < 1.0 U | < 1.0 U | **14** | < 2.0 U |
| | 9/25/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | 0.50 J | < 1.0 U | < 1.0 U | **13** | < 2.0 U |
| | 9/26/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | < 1.0 U | < 1.0 U | 0.37 J | < 1.0 U | < 1.0 U | **15** | < 2.0 U |
| | 9/29/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | < 1.0 U | 0.47 J | < 1.0 U | < 1.0 U | **9.7** | < 2.0 U |
| | 11/13/2009 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | < 1.0 U | 0.70 J | < 1.0 U | < 1.0 U | **6.5** | < 2.0 U |
| | 9/24/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.0 | < 1.0 U | < 1.0 U | 0.60 J | < 1.0 U | < 1.0 U | **3.8** | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | < 1.0 U | 0.78 J | < 1.0 U | < 1.0 U | **2.4** | < 2.0 U |
| | 9/6/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.9 | < 1.0 U | < 1.0 U | 0.87 J | < 1.0 U | < 1.0 U | 1.1 | < 2.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | < 1.0 U | 0.75 J | < 1.0 U | < 1.0 U | 1.4 | < 2.0 U |
| | 10/7/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | < 1.0 U | 0.71 J | < 1.0 U | < 1.0 U | 1.9 | < 2.0 U |
| | 11/4/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.5 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 0.78 J | < 2.0 U |
| | 8/19/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.6 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 0.90 J | < 2.0 U |
| RMW-85 | 9/26/2012 | < 10 U | < 10 U | < 10 U | < 10 U | < 10 U | < 10 U | **280** | **120** | < 10 U | < 10 U | < 10 U | < 20 U |
| | 9/27/2013 | 0.19 J | 0.84 J | 0.26 J | < 1.0 U | 60 | < 1.0 U | **61** | **95** | < 1.0 U | 0.48 J | 0.31 J | < 2.0 U |
| | 10/9/2014 | < 2.0 U | < 2.0 U | < 2.0 U | 0.75 J | 55 | < 2.0 U | **40** | **78** | < 2.0 U | 1.8 J | **5.0** | < 4.0 U |
| | 12/8/2015 | < 1.0 U | 0.41 J | < 1.0 U | < 1.0 U | 18 | < 1.0 U | **49** | **82** | < 1.0 U | < 1.0 U | 0.31 J | < 2.0 U |
| | 8/24/2016 | < 2.0 U | < 2.0 U | < 2.0 U | < 2.0 U | 18 | < 2.0 U | **62** | **110** | < 2.0 U | < 2.0 U | < 2.0 U | < 4.0 U |
| RMW-86 | 9/26/2012 | 12 | 13 | 1.6 J | < 6.7 U | 52 | < 6.7 U | **48** | **190** | < 6.7 U | 1.6 J | < 6.7 U | < 13 U |
| | 9/26/2013 | 15 | 16 | 2.3 | < 1.0 U | **110** | < 1.0 U | **41** | **190** | < 1.0 U | 2.9 | 1.3 | < 2.0 U |
| | 10/8/2014 | 9.4 | 7.6 | < 6.7 U | < 6.7 U | 33 | < 6.7 U | **29** | **140** | < 6.7 U | < 6.7 U | < 6.7 U | < 13 U |
| | 12/8/2015 | 6.1 | 11 | 1.6 | < 1.0 U | 37 | < 1.0 U | **40** | **110** | < 1.0 U | 1.3 | 0.45 J | < 2.0 U |
| | 8/17/2016 | 7.9 | 13 | 1.9 | < 1.0 U | 39 | < 1.0 U | **59** | **120** | < 1.0 U | 1.6 | 0.42 J | < 2.0 U |
| RMW-87 | 9/26/2012 | < 1.0 U | 15 | < 1.0 U | 0.13 J | 23 | < 1.0 U | < 1.0 U | **7.5** | 0.39 J | 1.3 | 0.93 J | < 2.0 U |
| | 9/26/2013 | < 1.0 U | 18 | < 1.0 U | < 1.0 U | 43 | < 1.0 U | < 1.0 U | **9.8** | < 1.0 U | 2.2 | 1.3 | < 2.0 U |
| | 10/9/2014 | < 2.2 U | 13 | < 2.2 U | < 2.2 U | 62 | < 2.2 U | < 2.2 U | **10** | < 2.2 U | 2.7 | < 2.2 U | < 4.4 U |
| | 11/5/2015 | < 1.0 U | 7.8 | < 1.0 U | < 1.0 U | 58 | < 1.0 U | < 1.0 U | **10** | < 1.0 U | 2.1 | 0.42 J | < 2.0 U |
| | 8/19/2016 | < 1.0 U | 7.8 | < 1.0 U | < 1.0 U | 43 K | < 1.0 U | < 1.0 U | **11** | < 1.0 U | 2.3 | 0.35 J | < 2.0 U |

**Appendix D Table 2**
**Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| **Downgradient of the Site** | | | | | | | | | | | | | |
| DN-13 | 11/14/2001 | 1.1 | 2.5 | < 1.0 U | < 1.0 U | 6.2 | < 1.0 U | < 1.0 U | 5.0 | < 1.0 U | 0.37J | 1.2 | < 1.0 U |
| | 9/27/2002 | 1.1 | 2.5 | < 1.0 U | < 1.0 U | 7.3 | < 1.0 U | < 1.0 U | **6.1** | < 1.0 U | 0.48J | 1.3 | < 1.0 U |
| | 9/22/2003 | 1.1 | 2.4 | < 1.0 U | < 1.0 U | 6.8 | < 1.0 U | 0.31 J | **6.4** | < 1.0 U | 0.4 J | 1.1 | < 1.0 U |
| | 9/16/2004 | 0.84 J | 2.2 | < 1.0 U | < 1.0 U | 6.7 | < 1.0 U | 0.44 J | **6.8** | < 1.0 U | 0.49 J | **2.1** | < 1.0 U |
| | 10/20/2005 | 1.5 | 2.0 | < 1.0 U | < 1.0 U | 5.5 | < 1.0 U | 0.38 J | **7.2** | < 1.0 U | < 1.0 U | **2.6** | < 2.0 U |
| | 9/27/2006 | 0.51 J | 1.5 | < 1.0 U | < 1.0 U | 6.1 | < 1.0 U | 0.33 J | **5.7** | < 1.0 U | 0.41 J | **2.3** | < 2.0 U |
| | 9/19/2007 | 0.48 J | 2.0 | < 1.0 U | < 1.0 U | 6.4 | < 1.0 U | < 1.0 U | 3.3 | < 1.0 U | 0.4 J | **2.6** | < 2.0 U |
| | 9/24/2008 | 0.63 J | < 1.7 U | < 1.0 U | < 1.0 U | 6.2 | < 1.0 U | < 1.0 U | 4.5 | < 1.0 U | 0.44 J | 1.4 | < 2.0 U |
| | 11/11/2009 | 0.77 J | 2.1 | < 1.0 U | < 1.0 U | 7.9 | < 1.0 U | 0.33 J | **6.5** | < 1.0 U | 0.50 J | 1.7 | < 2.0 U |
| | 9/22/2010 | 0.48 J | 1.6 | < 1.0 U | < 1.0 U | 6.9 | < 1.0 U | < 1.0 U | 5.0 | < 1.0 U | 0.44 J | 1.3 | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 6.3 | < 1.0 U | 0.40 J | 4.8 | < 1.0 U | 0.38 J | 1.3 | < 2.0 U |
| | 9/6/2012 | 0.99 J | 2.0 | < 1.0 U | < 1.0 U | 7.5 | < 1.0 U | 0.76 J | **7.9** | < 1.0 U | 0.47 J | 1.2 | < 2.0 U |
| | 9/27/2013 | 0.93 J | 1.9 | < 1.0 U | < 1.0 U | 6.9 | < 1.0 U | 0.58 J | **8.4** | < 1.0 U | 0.55 J | 1.1 | < 2.0 U |
| | 12/4/2014 | 0.86 J | 1.6 | < 1.0 U | < 1.0 U | 5.9 | < 1.0 U | 3.5 | **10** | < 1.0 U | 0.41 J | 0.79 J | < 2.0 U |
| | 11/5/2015 | 0.81 J | 1.3 | < 1.0 U | < 1.0 U | 5.5 | < 1.0 U | 2.5 | **9.0** | < 1.0 U | 0.42 J | 0.70 J | < 2.0 U |
| | 8/25/2016 | 0.97 J | 1.3 | < 1.0 U | < 1.0 U | 5.6 | < 1.0 U | 1.5 | **8.1** | < 1.0 U | 0.37 J | < 1.0 U | < 2.0 U |
| | 8/15/2017 | 0.93 J | 1.5 | < 1.0 U | < 1.0 U | 5.8 | < 1.0 U | 2.1 | **8.0** | < 1.0 U | 0.43 J | 0.86 J | < 2.0 U |
| | 7/24/2018 | 0.52 J | 1.1 | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | 1.4 | **6.2** | < 1.0 U | 0.28 J | 0.53 J | < 2.0 U |
| | 7/11/2019 | 0.66 J | 1.0 | < 1.0 U | < 1.0 U | 4.4 | < 1.0 U | 0.87 J | **5.6** | < 1.0 U | 0.23 J | 0.30 J | < 2.0 U |
| | 7/28/2020 | 0.56 J | 0.96 J | < 1.0 U | < 1.0 U | 4.2 | < 1.0 U | 1.2 | **5.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/16/2021 | 0.56 J | 1.3 | < 1.0 U | < 1.0 U | 4.5 | < 1.0 U | 1.4 | 5.0 | < 1.0 U | < 1.0 U | 0.50 J | < 2.0 U |
| | 8/18/2022 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | 3.0 | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/8/2022 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | 1.5 | **5.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/15/2023 | < 1.0 U | 0.99 J | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | 1.5 | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-1 | 9/28/1999 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | **31** | 5.2 | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/2/2000 | 2.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.8 | **37** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/14/2001 | 0.80J | 0.29J | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.3 | **19** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/1/2002 | 1.3 J | 0.48 J | < 1.4 U | < 1.4 U | 0.95 | < 1.4 U | 2.3 | **39** | < 1.4 U | < 0.72 U | < 1.4 U | < 1.4 U |
| | 10/2/2003 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 2.0 | **34** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/21/2004 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 2.1 | **35** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/25/2005 | 0.95 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | **34** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/20/2006 | 0.76 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.1 | **34** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/18/2007 | 0.74 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | **32** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2008 | 0.69 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | **31** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | 0.42 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | **26** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.41 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.83 J | **21** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-3 | 9/28/1999 | 1.7 | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 1.2 | **7.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/2/2000 | 1.0 | 2.1 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | 1.5 | **9.4** | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U |
| | 11/14/2001 | 0.16 J | 0.95 J | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | 0.48 J | 2.9 | < 1.0 U | 0.25 J | < 1.0 U | < 1.0 U |
| | 10/1/2002 | 0.74 J | 1.8 | < 1.0 U | < 1.0 U | 8.9 | < 1.0 U | 1.4 | **9.5** | < 1.0 U | 1.2 | 0.63 J | < 1.0 U |
| | 10/2/2003 | 0.96 J | 1.6 | < 1.0 U | < 1.0 U | 5.5 | 0.26 J | 1.7 | **12** | < 1.0 U | 0.77 | < 1.0 U | < 1.0 U |
| | 9/21/2004 | 1.0 | 1.8 | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | 2.0 | **13** | < 1.0 U | 0.75 | < 1.0 U | < 1.0 U |
| | 10/25/2005 | 0.83 J | 1.6 | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | 2.0 | **14** | < 1.0 U | 0.66 J | < 1.0 U | < 2.0 U |
| | 9/22/2006 | 0.59 J | 2.0 J | < 1.0 UJ | < 1.0 UJ | 6.1 J | < 1.0 UJ | 2.1 J | **13 J** | < 1.0 UJ | 1.0 J | 0.27 J | < 2.0 UJ |
| | 9/18/2007 | 0.67 J | 1.5 | < 1.0 U | < 1.0 U | 3.8 | < 1.0 U | 1.9 | **14** | < 1.0 U | 0.77 J | < 1.0 U | < 2.0 U |
| | 9/24/2008 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 UJ | < 1.0 UJ | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.54 J | 0.86 J | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | 2.3 | **15** | < 1.0 U | 0.29 J | < 1.0 U | < 2.0 U |
| GM-4 | 9/28/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | **13.4** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| GM-5 | 9/28/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | 3.9 | < 1.0 U | < 1.0 U | < 1.0 U |
| GM-9 | 9/24/1999 | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | **14** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/3/2000 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **17** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/14/2001 | 0.48J | 0.58J | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | 0.38 J | **8.6** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/30/2002 | 0.99J | 0.48J | < 1.0 U | < 1.0 U | 0.66 | < 1.0 U | < 1.0 U | **16** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/24/2003 | 1.3 | 0.45 J | < 1.0 U | < 1.0 U | 0.56 | < 1.0 U | < 1.0 U | **20** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/21/2004 | 1.1 | 0.6 J | < 1.0 U | < 1.0 U | 0.97 | < 1.0 U | < 1.0 U | **16** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/26/2005 | 0.85 J | 0.59 J | < 1.0 U | < 1.0 U | 0.99 J | < 1.0 U | < 1.0 U | **15** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2006 | 0.44 J | 0.48 J | < 1.0 U | < 1.0 U | 0.85 J | < 1.0 U | < 1.0 U | **6.6** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/19/2007 | 1.2 | 0.48 J | < 1.0 U | < 1.0 U | 0.71 J | < 1.0 U | < 1.0 U | **18** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2008 | 1.2 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **18** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/22/2010 | 1.0 | 0.35 J | < 1.0 U | < 1.0 U | 0.46 J | < 1.0 U | < 1.0 UJ | **17 J** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | 0.50 J | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | **13** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | 24 | <22 U | <22 U | <22 U | 7.9 J | <22 U | <22 U | **340** | <22 U | <22 U | <22 U | <44 U |
| | 9/26/2012 | 1.1 | 0.24 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **16** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | 0.44 J | < 1.0 U | < 1.0 U | **19** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | 1.2 | 0.39 J | < 1.0 U | < 1.0 U | 0.54 J | < 1.0 U | < 1.0 U | **17** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 12/11/2015 | 0.92 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.26 J | < 1.0 U | < 1.0 U | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/17/2016 | 1.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **13** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 08/15/2017 | 0.84 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/24/2018 | 0.49 J | 0.18 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **9.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/11/2019 | 0.51 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **6.0** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/20/2020 | 0.90 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **13** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Appendix D Table 2**
**Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| GM-11 | 9/24/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | **15** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/2/2000 | 1.4 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.0 | **41** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/14/2001 | 0.33J | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 1.0 | **12** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/1/2002 | 1.0 | 0.34J | < 1.0 U | < 1.0 U | 0.62 | < 1.0 U | 2.2 | **35** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/24/2003 | 0.96 J | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 2.2 | **33** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/21/2004 | 0.89 J | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | 2.1 | **33** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/26/2005 | 0.75 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | **32** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2006 | 0.75 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.0 | **34** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/18/2007 | 0.6 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | **35** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/24/2008 | 0.47 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | **31** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/12/2009 | 0.47 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.8 | **37** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/22/2010 | 0.36 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.5 | **31** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.4 U | < 1.4 U | < 1.4 U | < 1.4 U | < 1.4 U | < 1.4 U | 1.1 J | **24** | < 1.4 U | < 1.4 U | < 1.4 U | < 2.9 U |
| | 9/5/2012 | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.39 J | < 1.0 U | 1.2 | **25** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | 0.40 J | < 1.0 U | 1.3 | **23** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/7/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.1 | **17** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.89 J | **13** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/18/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.2 | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-13 | 9/24/1999 | 1.9 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.6 | **31** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| GM-14 | 9/24/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| GM-15 | 9/24/1999 | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 4.3 | < 1.0 U | < 1.0 U | 4.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/2/2000 | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | 2.6 | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/14/2001 | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 4.9 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/27/2002 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/22/2003 | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | **5.9** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/20/2004 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 1.4 | < 1.0 U | < 1.0 U | **5.8** | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/26/2005 | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | 1.7 | < 1.0 U | < 1.0 U | **5.9** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/18/2006 | < 1.0 U | 1.6 | < 1.0 U | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2007 | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | **5.1** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/30/2008 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 0.79 J | < 1.0 U | < 1.0 U | **6.2** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/13/2009 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | **6.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/23/2010 | < 1.0 U | 1.2 | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | **6.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/29/2011 | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 4.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | 0.23 J | 1.3 | < 1.0 U | < 1.0 U | 2.2 | < 1.0 U | < 1.0 U | **6.1** | 0.33 J | 0.31 J | < 1.0 U | < 2.0 U |
| | 9/25/2013 | < 1.0 U | 1.3 | < 1.0 U | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 4.5 | < 1.0 U | < 1.0 U | 0.19 J | < 2.0 U |
| | 10/7/2014 | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | < 1.0 U | 4.1 | < 1.0 U | 0.42 J | 0.38 J | < 2.0 U |
| | 11/4/2015 | < 1.0 U | 1.8 | < 1.0 U | < 1.0 U | 7.7 | < 1.0 U | < 1.0 U | **6.6** | < 1.0 U | 0.77 J | 0.47 J | < 2.0 U |
| | 8/18/2016 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 7/31/2017 | < 1.0 U | 2.1 | < 1.0 U | < 1.0 U | 7.7 | < 1.0 U | < 1.0 U | **5.7** | < 1.0 U | 0.77 J | 0.58 J | < 2.0 U |
| | 7/24/2018 | < 1.0 U | 1.9 | < 1.0 U | < 1.0 U | 6.6 | < 1.0 U | < 1.0 U | **5.8** | < 1.0 U | 0.66 J | 0.50 J | < 2.0 U |
| | 7/8/2019 | < 1.0 U | 2.3 | < 1.0 U | < 1.0 U | 9.4 | < 1.0 U | < 1.0 U | **5.7** | < 1.0 U | 0.68 J | 0.68 J | < 2.0 U |
| | 7/29/2020 | < 1.0 U | 2.6 | < 1.0 U | < 1.0 U | 12 | < 1.0 U | < 1.0 U | 4.5 | < 1.0 U | 0.64 J | 0.56 J | < 2.0 U |
| GM-20D | 9/24/1999 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 10/3/2000 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 11/14/2001 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 9/30/2002 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 9/22/2003 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 9/21/2004 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 10/26/2005 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 9/26/2006 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 9/19/2007 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 9/25/2008 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 11/13/2009 | < 1.0 U | 2.0 | < 1.0 U | < 1.0 U | 8.3 | < 1.0 U | < 1.0 U | **6.3** | < 1.0 U | 0.75 J | 0.69 J | < 2.0 U |
| | 9/22/2010 | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | **6.5** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/28/2011 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.2 | 5.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.7 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/25/2013 | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | **5.3** | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/6/2014 | 0.32 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.7 | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.5 | 1.6 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/19/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.3 | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 08/15/2017 | 0.23 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.9 | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/24/2018 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 1.0 | 0.63 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/11/2019 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.37 J | 0.48 J | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 7/29/2020 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 3.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-56 | 9/14/2006 | 0.35 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 0.57 J | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/5/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | 2.4 | < 1.0 U | 0.47 J | < 1.0 U | < 1.0 U | 0.28 J |
| GM-65D | 5/2/2007 | 0.40 J | 1.4 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | 1.3 | < 1.0 U | 0.21 J | < 1.0 U | < 2.0 U |
| | 1/21/2008 | 0.32 J | 0.94 J | < 1.0 U | < 1.0 U | 1.0 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 1/27/2010 | 0.88 J | 1.2 | < 1.0 U | < 1.0 U | 1.1 | < 1.0 U | < 1.0 U | 1.5 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/14/2018 | 1.7 | 0.33 J | < 1.0 U | < 1.0 U | 0.28 J | < 1.0 U | < 1.0 U | 3.0 | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| GM-77D | 9/27/2007 | < 1.4 U | < 1.4 U | < 1.4 U | < 1.4 U | < 1.4 U | < 1.4 U | **45** | < 1.4 U | < 1.4 U | < 1.4 U | < 1.4 U | < 2.9 U |
| | 1/28/2010 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **18** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/7/2012 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **11** | < 1.0 U | 0.17 J | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2013 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **12** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 10/8/2014 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **14** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 11/3/2015 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **18** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 8/17/2016 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | **17** | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

**Appendix D Table 2**
**Groundwater VOC Analytical Results for the Lower Aquifer Wells from 1999 to 2023**
**RACER Trust Moraine Facilities**
**Moraine, Ohio**

| Well | Date | VOCs (ug/L) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1,1,1-TCA | 1,1-DCA | 1,1-DCE | Benzene | cis-1,2-DCE | Ethyl-benzene | PCE | TCE | Toluene | trans-1,2-DCE | Vinyl Chloride | Xylenes |
| | MCL | 200 | -- | 7 | 5 | 70 | 700 | 5 | 5 | 1000 | 100 | 2 | 10,000 |
| MT-69 (1) | 9/24/1999 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 10/3/2000 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U |
| | 11/15/2001 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/30/2002 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/1/2003 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 9/27/2004 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 0.50 U | < 1.0 U | < 1.0 U |
| | 10/24/2005 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/26/2006 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |
| | 9/27/2007 | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 1.0 U | < 2.0 U |

NOTES:
< - Constituent not detected above laboratory reporting limit shown.
(1) - Well abandoned.
1,1,1-TCA - 1,1,1-Trichloroethane.
1,1-DCA - 1,1-Dichloroethane.
1,1-DCE - 1,1-Dichloroethene.
B - Compound was found in the blank and sample.
**BOLD** - Result above MCL.
cis-1,2-DCE - cis-1,1-Dichloroethene.
F1 - MS and/or MSD recovery exceeds control limits.
F2 - MS/MSD Relative Percent Difference exceeds control limits.
J - Value is estimated.
K - The compound was positively identified; however, the associated numerical value is an estimated concentration only and the reported value may be biased high.
MCL - Maximum Contaminant Level.
PCE - Tetrachloroethene.
trans-1,2-DCE - trans-1,2-Dichloroethene.
TCE - Trichloroethene.
U - Constituent not detected above laboratory reporting limit shown.
UB - Analyte considered non-detect at listed value due to associated blank contamination.
ug/L - Micrograms per Liter.
VOCs - Volatile Organic Compounds.
* - LCS or LCSD is outside acceptable limits.

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