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October 30, 2024
Project No. M0615.20.013

Steve Teel, LHG, Cleanup Project Manager/Hydrogeologist
Washington State Department of Ecology
Toxics Cleanup Program, Southwest
P.O. Box 47775
Olympia, WA 98504

Re: Vapor Intrusion Data Gaps Report
Taylor Way and Alexander Fill Area—Former Potter Property

Dear Steve Teel:

Maul Foster & Alongi, Inc. (MFA) has prepared this vapor intrusion (VI) data gaps report on behalf of the Port of Tacoma (the Port) to describe the field activities conducted and data collected during the additional data gaps assessment at the former Potter Property, located at 1801 Alexander Avenue in Tacoma, Washington (the Potter Property; see Figure 1). The Potter Property is part of the Taylor Way and Alexander Avenue Fill Area (TWAAFA) site (the Site) (Washington State Department of Ecology [Ecology] facility ID no. 1403183; cleanup site ID no. 4692).

MFA performed field activities at the Potter Property consistent with the Ecology-approved *Vapor Intrusion Additional Data Gaps Work Plan* (Work Plan) (MFA 2024).

Purpose

The data gaps investigation was conducted in response to Ecology's January 4, 2024, letter, containing comments (Ecology 2024a) on MFA's *Tier II Vapor Intrusion Assessment Report* (MFA 2023). In Ecology's letter, they requested additional investigation work to assess the source and areal extent of contamination at the former Potter Property, focusing on the Shop Building and the property line adjacent to Emerald Services Building.

The field investigation activities included the collection of soil vapor samples from beneath the slab in the Shop Building and from the vadose zone along the Potter Property boundary between the Shop Building and the adjacent Emerald Services building. These sample collection locations were consistent with Ecology's guidance (Ecology 2024a, 2024b, 2024c, 2024d).

Background

Property Description

The approximately 1.7-acre Potter Property is currently used for shipping container and chassis repair by the Port's tenant, Handan Containers. The Potter Property is situated between two large-quantity hazardous waste generator facilities that treat, handle, and/or store hazardous waste: Burlington Environmental, LLC Tacoma (BE) to the west and north and Emerald Services, Inc. to the East (see Figure 2).

Property History and Previous Investigations

Unlined waste oil storage ponds from the now BE property, extended onto the Potter Property. In November 2000, BE constructed a 104-foot long trench on the Potter Property to recover light non-aqueous phase liquid (LNAPL) petroleum hydrocarbon contamination from the subsurface. This contamination originated from the historical waste oil pond on the adjacent BE property. The Potter Property is known to Ecology to be contaminated with metals, petroleum mixtures, volatile organic compounds (VOCs), and semivolatile organic compounds (Ecology 2020).

In July 2022, MFA completed a Tier I VI investigation consisting of sub-slab soil vapor sampling in Quonset Hut #1, Quonset Hut 2, and the Shop Building at the Potter Property (MFA 2022). Total petroleum hydrocarbons (TPH) and multiple VOCs exceeded applicable sub-slab gas VI screening levels in samples from each of the buildings. Notably, the highest VOC exceedance was TPH, observed at sub-slab vapor location TWA-SV-35 in Quonset Hut 2, which exhibited a concentration 700 times its screening level. PCE, TCE, and TPH were also detected beneath the Shop Building above their screening levels, though at lower exceedance factors than observed for TPH beneath Quonset Hut 2.

Following the 2022 Tier I VI investigation, MFA completed a Tier II VI investigation in June 2023 consisting of indoor air, ambient air, and additional sub-slab vapor sampling at the Potter Property, including two new vapor pin locations in the Shop Building (MFA 2023a). Numerous VOCs exceeded sub-slab vapor screening levels in the Shop Building, including the two vapor pins installed during the 2023 event. Most VOCs that exceeded sub-slab vapor screening levels were not detected in indoor air. For indoor air, generally VOCs remained below the risk-based screening levels or were attributable to ambient air or operational sources, with exception of potentially petroleum hydrocarbon constituents TPH and benzene. TPH and benzene were both detected in indoor air samples above screening levels in Quonset Hut 2 and benzene was also detected in indoor air samples in the Shop Building above the screening level, indicating the potential for VI to be occurring from the LNAPL plume present beneath Quonset Hut 2. Previous investigations conducted by MFA and others confirm that LNAPL is present beneath Quonset Hut 2 in the vicinity of TWA-SV-35 (MFA 2023b). PCE and TCE concentrations in indoor air remained below their respective screening levels in the Shop Building, indicating VI is not likely contributing to indoor air concentrations.

Ecology provided comments on the Tier II VI assessment in a letter dated January 4, 2024 (Ecology 2024a). In the letter, Ecology indicated the exceedances of PCE and TCE observed in sub-slab vapors collected from within the Shop Building, located adjacent to the Emerald Services Building, were of concern. Ecology requested additional investigation work to complete the remedial investigation and to assess the areal extent of subsurface vapors beyond the Shop Building adjacent to the Emerald Services Building.

Field Investigation Activities

Photographs from field activities are provided in Attachment A.

Soil Vapor Monitoring Point Installation

On August 12, 2024, MFA oversaw the installation of three permanent soil vapor monitoring points (TWA-SV-46 through TWA-SV-48) along the exterior, eastern edge of the Shop Building on the Potter Property, near the Emerald Services building (see Figure 3). Prior to drilling, MFA coordinated public

and private utility locates to identify the presence of subsurface utilities in the vicinity of the installation locations.[1]

Soil vapor monitoring points were installed via direct-push drilling methods by Anderson Environmental Contracting LLC of Kelso, Washington, a licensed driller in Washington State. As described in the Work Plan, soil vapor points were installed to a depth of 2 feet below ground surface, rather than the standard 5 feet below ground surface, due to shallow groundwater levels at the Potter Property (MFA 2024). Soil vapor point completion details are summarized in Table 1.

Differential Manometer Installation and Reading

On August 22, 2024, MFA installed one manometer to log differential pressure five days prior to and during sample collection. The manometer was installed at vapor pin location TWA-SV-43, in the north portion of the Shop Building, due to its location away from ongoing operations (see Figure 3). Differential pressure measurements continued throughout the completion of the sub-slab vapor sampling. Measurements were stopped at the end of the day on August 27, 2024.

Sub-slab Vapor Pin and Soil Vapor Point Sampling

On August 27, 2024, MFA collected sub-slab and soil vapor samples from eight locations (shown on Figure 3):

- Five sub-slab vapor samples from existing, permanent vapor pins located inside of the Shop Building (TWA-SV-41 through TWA-SV-45).
- Three soil vapor samples from the newly installed soil vapor monitoring points on the outside of the Shop Building (TWA-SV-46 through TWA-SV-48).

Samples were collected in Tedlar bags and 1-liter Summa canisters with five-minute flow regulators, set to a flow rate of 200 milliliters per minute. MFA deployed a helium shroud around the sampling apparatus at each location. MFA used an MGD-2002 helium leak detector to measure helium concentrations in the shroud and around the sampling location in the field. Samples were later analyzed for helium to assess leaks in the sample train. No leaks were identified.

MFA collected one field duplicate sample using a T-splitter at the point of sampling collection. The field duplicate sample was collected from vapor pin location TWA-SV-44, located inside of the Shop Building (see Figure 3).

MFA recorded field data on field sampling data sheets, including purge start and stop times; sampling start and stop times; initial and final canister vacuum readings; and helium concentrations under the shroud, in the purge bag, and in ambient air (see Attachment B).

Passive Soil Vapor Sampling

On August 13, 2024, prior to sub-slab and soil vapor sampling, MFA deployed a total of five (5) passive soil vapor samplers at intervals along the Potter Property boundary between the Shop Building and the adjacent Emerald Services building (see Figure 3). The intention of the passive vapor sampling was to assess the representativeness of the soil vapor samples collected from the newly installed soil vapor points. The passive sample locations were placed at least 10 feet from the

[1]The soil vapor monitoring point locations were adjusted slightly from the locations proposed in the Work Plan due to the presence of subsurface utilities identified during the utility locate.

permanent soil vapor monitoring points to reduce the potential for migration of vapors through preferential pathways, per the distributor's instructions (Beacon 2024).[2]

At each location, an initial hole was drilled to a 1-foot depth using a handheld rotary hammer drill and a 1.5-inch diameter drill bit. The hole was then extended to a 2-foot depth using a 0.5-inch diameter drill bit. MFA used Beacon Environmental BESURE Sample Collection Kits to install Beacon Passive Samplers in each hole, then sealed the holes in accordance with the procedures described the Work Plan. Passive vapor sampler completion details are summarized in Table 1. A passive soil vapor field sampling data sheet is included in Attachment B.

On August 27, 2024, 14 days after deployment, MFA retrieved the passive soil vapor samplers. A field duplicate sample was collected from the TWA-PSV-05 location. MFA recorded field parameters, including sample deployment and retrieval dates; sampling start and stop times; and field conditions (see Attachment B).

Analytical Methods and Quality Control/Quality Assurance

Sub-slab, soil vapor point, and passive soil vapor samples were submitted to Washington State accredited laboratories for analyses of VOCs consistent with the Work Plan. Additional details are provided below.

Sub-Slab and Soil Vapor Point Sampling

Sub slab and soil vapor point samples were submitted to Friedman & Bruya, Inc., located in Seattle, Washington. Sub-slab vapor samples were collected and analyzed for the following:

- Air phase hydrocarbons (APH) by Massachusetts APH Method
- VOCs by U.S. Environmental Protection Agency (EPA) Method Toxic Organics-15
- Helium by ASTM International D1946

Sub-slab vapor samples were also collected in Tedlar bags and analyzed for methane, oxygen, and carbon dioxide by EPA 3C. The laboratory analyses for EPA 3C were subcontracted to Alliance Technical Group (formerly Fremont Analytical, Inc.), also located in Seattle, Washington.

Passive Soil Vapor Sampling

Passive soil vapor samples were collected and analyzed for the following:

- VOCs by Toxics Organics-17 Method
- APH by Toxics Organics-17 Method

The passive soil vapor was collected using the Beacon Passive Sampler and analyzed by Beacon Environmental, located in Bel Air, Maryland.

Results

Analytical results are summarized in Tables 2 and 3. Analytical laboratory reports are provided in Attachment C, and a data validation memorandum is presented in Attachment D. Results were

[2]The passive soil vapor locations were adjusted from the proposed locations in the Work Plan due the distributor's instructions. Ecology approved the adjusted locations via email on August 13, 2024.

screened to both MTCA Method B and C CULs.[3] When both cancer and noncancer CULs were available, results were screened to the lower of the two levels.

Differential Pressure

Differential pressure readings collected during field activities are included in Attachment E. Differential pressure readings were interpreted as follows:

- If the differential pressure reading is positive, then the subsurface pressure exceeds the pressure inside the building and there is potential for an upward pressure gradient through the slab. This indicates that VI may be occurring.
- If the differential pressure reading is negative, then the inverse is true and there is potential for a downward pressure gradient through the slab. This indicates that VI is unlikely to be occurring.

The manometer used to measure the pressure differential beneath the concrete slab indicated the following:

- The differential pressure in the Shop Building was generally slightly negative three days prior to and during sampling activities, indicating that VI was less likely to occur in this building at the time of the August assessment.

Sub-Slab Vapor and Soil Vapor Point

A summary of the sub-slab vapor and soil vapor point analytical data is present in Table 2. The following chemicals were detected in sub-slab and soil vapor samples at concentrations exceeding their respective screening criteria:

- Chloroform was detected in six samples, with concentrations ranging from 0.32 to 6.1 micrograms per cubic meter (ug/m^3). Chloroform exceeded MTCA Method B CUL of 3.6 ug/m^3 at TWA-SV-44 (5.7 and 6.1 ug/m^3 for the primary and field duplicate samples, respectively).
- Tetrachloroethene (PCE) was detected in six samples, with concentrations ranging from 290 to 10,000 ug/m^3. PCE exceeded MTCA Method B CUL of 320 ug/m^3 or C CUL of 1,300 ug/m^3 at four locations:
  - MTCA Method B and C CULs at TWA-SV-44 (10,000 ug/m^3 for both the primary and field duplicate samples).
  - MTCA Method B and C CULs at TWA-SV-45 (2,000 ug/m^3).
  - MTCA Method B and C CULs at TWA-SV-41 (7,900 ug/m^3).
  - MTCA Method B CUL at TWA-SV-42 (840 ug/m^3).
- Trichloroethene (TCE) was detected in three samples, with concentrations ranging from 100 to 1,200 ug/m^3. TCE exceeded screening levels at two locations:
  - MTCA Method B and C CULs of 11 and 67 ug/m^3, respectively, at TWA-SV-41 (100 ug/m^3).
  - Short-term screening level of 250 ug/m^3, along with Method B and C CULs of 11 and 67 ug/m^3, respectively, at TWA-SV-44 (1,200 ug/m^3 for both the primary and field duplicate samples).

[3]MTCA cleanup levels for a commercial workers scenario are provided in Ecology's Cleanup Levels and Risk Calculations database, but were not applied to maintain consistency with screening criteria in previous reports.

The following chemicals were detected in sub-slab and soil vapor samples but remained below their respective screening criteria:

- cis-1,2-Dichloroethene was detected at TWA-SV-44 (39 and 41 ug/m^3 for the primary and field duplicate samples, respectively).
- Dichlorodifluoromethane (Freon 12) was detected at TWA-SV-48 (50 ug/m^3).
- Ethylbenzene was detected in three samples, with concentrations ranging from 5 to 8.8 ug/m^3.
- m,p-Xylene was detected in seven samples, with concentrations ranging from 5.7 to 31 ug/m^3.
- o-Xylene was detected in three samples, with concentrations ranging from 3.8 to 7 ug/m^3.
- trans-1,2-Dichloroethene was detected at TWA-SV-44 (190 and 200 ug/m^3 for the primary and field duplicate samples, respectively).
- Trichlorofluoromethane (Freon 11) was detected in three samples, with concentrations ranging from 26 to 210 ug/m^3.
- Total xylenes (calculated value) were detected in seven samples, with concentrations ranging from 6.9 to 38 ug/m^3.
- C5-C8 aliphatic hydrocarbons were detected in five samples, with concentrations ranging from 470 to 880 ug/m^3.
- TPH (calculated value) were detected in all nine samples, with concentrations ranging from 579 to 1,150 ug/m^3.

The remaining VOCs were non-detect.

A helium shroud was deployed around each sub-slab vapor sampling location to assess leaks in the sample train, as described in the Field Investigation Activities section. Analytical laboratory results and field screening indicate that no leaks were present in the sample trains during collection of the five sub-slab vapor and three soil vapor point samples (see data validation memorandum in Attachment D).

Anaerobic Biodegradation of TPH

Methane, oxygen, and carbon dioxide were analyzed at sub-slab vapor and soil vapor point locations to evaluate whether TPH biodegradation may be occurring in the subsurface. Oxygen was present in sub-slab vapor samples at concentrations ranging from 16.8 to 21.7 percent (TWA-SV-41 and TWA-SV-46, respectively). Concentrations of carbon dioxide ranged from 0.188 to 3.92 percent (TWA-SV-41 and TWA-SV-43, respectively). Methane was not detected in any of the samples. These observations are generally consistent with the results of the previous sub-slab vapor sampling events in the Shop Building (MFA 2023, 2022).

These concentrations do not indicate that anaerobic biodegradation of petroleum hydrocarbons is occurring in the vicinity of the Shop Building. In contrast, anaerobic biodegradation is observed beneath Quonset Hut 2, based on previous sub-slab sampling events conducted in 2022 and 2023 (MFA 2023). Anerobic biodegradation indications (low oxygen, high carbon dioxide, and the presence of methane) are observed at TWA-SV-35, located in Quonset Hut 2, an area that correlates with high TPH concentrations in the subsurface.

Passive Soil Vapor

A summary of the passive soil vapor analytical data is present in Table 3.[4] No chemicals were detected in the passive soil vapor samples that exceeded their respective screening criteria. The following chemicals were detected in passive soil vapor at concentrations below their respective screening criteria:

- PCE was detected at TWA-PSV-02 (3.1 ug/m^3).
- Toluene was detected at TWA-PSV-02 (8.44 ug/m^3).
- C5-C8 aliphatic hydrocarbons were detected at TWA-PSV-03 (11.7 ug/m^3).
- TPH (calculated value) were detected at TWA-PSV-02 and TWA-PSV-03 (16.5 to 18 ug/m^3, respectively).

The remaining VOCs were non-detect. No chemicals were detected at TWA-PSV-01, TWA-PSV-04, and TWA-PSV-05.

Summary

PCE, TCE, and chloroform were detected in vapor samples from the sub-slab locations in the Shop Building (TWA-SV-41, TWA-SV-42, TWA-SV-44, and TWA-SV-45) at concentrations above their respective screening criteria. Soil vapor monitoring points located outside of the Shop Building (TWA-SV-46 through TWA-SV-48) did not exhibit concentrations of chemicals above their respective screening criteria.

None of passive soil vapor samples exhibited concentrations of chemicals above their respective screening criteria. Two locations (TWA-PSV-02 and TWA-PSV-03) exhibited detections of PCE, toluene, and petroleum hydrocarbons well below their respective screening levels for vapor intrusion. No detections were identified in the remaining locations.

Based on the results of the investigation, VOCs, primarily PCE and TCE, appear to be accumulating beneath the slab of the Shop Building, as indicated by the exceedances at the sub-slab vapor locations. This is consistent with results from previous investigations. However, VOCs appear to rapidly attenuate to the east of the Shop Building, between the Potter Property boundary and the building slab, based on the low detections and no exceedances at the soil vapor monitoring points. Additionally, the results indicate there is no long-term buildup of vapors occurring in the subsurface outside the Shop Building, as low or non-detect concentrations of VOCs were observed the passive soil vapor samplers, which account for fluctuations over a two-week time period.

Results demonstrate VOC concentrations from the soil vapor monitoring points and the passive soil vapor samplers along the Potter Property boundary are non-detect or below CULs.

Based on the results of this and previous investigations of groundwater, soil, sub-slab vapor and indoor air at the Potter Property, the potential for VI at the Potter Property appears to be primarily driven by the LNAPL plume that extends onto the Potter property and beneath Quonset 2.

[4]The passive soil vapor samples are initially measured in units of mass and converted by the laboratory to units of concentration (ug/m^3) by using compound-specific uptake rates and the duration of sample collection (two weeks). This conversion allows for the direct comparison of MTCA screening criteria.

Closing

Please contact Audrey Hackett at (206) 556-2015 if you have any questions related to this report.

Sincerely,

Maul Foster & Alongi, Inc.

Audrey Hackett
Senior Environmental Scientist

Brenden Murphy
Staff Environmental Scientist

Attachments

References

Limitations

Figures

Tables

Attachment A—Field Photographs

Attachment B—Field Sampling Data Sheets

Attachment C—Analytical Laboratory Reports

Attachment D—Data Validation Memorandum

Attachment E—Manometer Data

cc: Scott Hooton, Port of Tacoma

Tasya Gray, Dalton, Olmsted & Fuglevand, Inc.

Kim Seely, Coastline Law Group PLLC

Douglas Steding, Northwest Resource Law PLLC

References

Beacon. 2024. *Passive Soil Gas Testing: Standard for Site Characterization, Technical Memorandum*. Beacon Environmental: Bel Air, Maryland. January 26.

Ecology. 2020. *Enforcement Order No. DE 19410: In the matter of remedial action by: the Port of Tacoma at the Taylor Way and Alexander Avenue Fill Area (TWAAFA) Site* to Eric Johnson, Port of Tacoma. December 4.

Ecology. 2022. *Guidance for Evaluating Vapor Intrusion in Washington State, Investigation and Remedial Action.* Washington State Department of Ecology, Toxics Cleanup Program: Olympia, WA. March.

Ecology. 2024a. Steve Teel, LHG, Washington State Department of Ecology. *Re: Comments on Investigation Reports and requirement for work plan.* Letter to Tasya Gray, LG, Dalton, Olmsted & Fuglevand, and Scott Hooton, Port of Tacoma. January 4.

Ecology. 2024b. Steve Teel, LHG, Washington State Department of Ecology. *Re: Response to February 16, 2024.* Letter to Tasya Gray, LG, Dalton, Olmsted & Fuglevand, and Scott Hooton, Port of Tacoma. April 3.

Ecology. 2024c. Steve Teel, LHG, Washington State Department of Ecology. *Re: Comments on Former Potter Property Vapor Intrusion Data Gaps Work Plan.* Letter to Tasya Gray, LG, Dalton, Olmsted & Fuglevand, and Scott Hooton, Port of Tacoma. May 16.

Ecology. 2024d. Steve Teel, LHG, Washington State Department of Ecology. *RE: Potter - Vapor Pin Installation and proposed changes to passive sampler locations*. Email to Scott Hooton, Port of Tacoma, and Audrey Hackett, Maul Foster & Alongi, Inc. August 13.

MFA. 2021. *Final Vapor Sampling and Analysis Plan, Taylor Way and Alexander Avenue Fill Area, Former Potter Property, 1801 E Alexander Avenue, Tacoma, Washington*. Prepared for Port of Tacoma. Maul Foster & Alongi, Inc.: Seattle, WA. December 16.

MFA. 2022. *Vapor Intrusion Assessment Report, Taylor Way and Alexander Avenue Fill Area, Former Potter Property, 1801 E Alexander Avenue, Tacoma, Washington.* Prepared for Port of Tacoma. Maul Foster & Alongi, Inc.: Seattle, WA. October 6.

MFA. 2023a. *Tier II Vapor Intrusion Assessment Report, Taylor Way and Alexander Avenue Fill Area, Former Potter Property, 1801 E Alexander Avenue, Tacoma, Washington.* Prepared for Port of Tacoma. Maul Foster & Alongi, Inc.: Seattle, WA. August 23.

MFA. 2023b. *Supplemental Subsurface Investigation, Potter Property, Taylor Way and Alexander Avenue Fill Area.* Prepared for Port of Tacoma. Maul Foster & Alongi, Inc.: Seattle, WA. August 18.

MFA. 2024. A. Hackett and B. Murphy, Maul Foster & Alongi, Inc. *Vapor Intrusion Data Gaps Work Plan, Taylor Way and Alexander Fill Area—Former Potter Property.* Letter to Steve Teel, LHG, Washington State Department of Ecology. June 5.

Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Figures

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Note
TWAAFA = Taylor Way and Alexander Avenue Fill Area.

Legend

- Potter Property
- TWAAFA Site Boundary

Figure 1
Property Location

Port of Tacoma
Former Potter Property
1801 E Alexander Avenue
Tacoma, Washington

0 1,000 2,000
Feet

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Data Sources
U.S. Geological Survey (2021) 7.5-minute topographic quadrangle: Tacoma, Washington.
Township 21 North, Range 3 East, Section 35.
Tax parcel obtained from Pierce County Assessor.
TWAAFA site boundary obtained from Exhibit A of Agreed Order No. DE 14260.

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Figure 2
Property Features

Port of Tacoma
Former Potter Property
1801 E Alexander Avenue
Tacoma, Washington

Legend

- Chain Link Gate
- Door
- Features
- Buildings
- Property

Notes
All features are approximate.
Potter property boundary is approximate.

0 40
Feet

Data Sources
Aerial photograph obtained from Google Earth.

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Produced By: sturner
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Figure 3
Sample Locations

Port of Tacoma
Former Potter Property
1801 E Alexander Avenue
Tacoma, Washington

Legend

- Passive Soil Vapor Location (2024)
- Permanent Soil Vapor Monitoring Point (2024)
- Sub-Slab Vapor Pin, Sampled
- Sub-Slab Vapor Pin, Not Sampled
- Chain link gate
- Exterior door
- Building
- Property

Notes
All features and sample locations are approximate.
Location of TWA-SV-42 altered based on updated field measurements.

0 20
Feet

Data Sources
Aerial photograph obtained from Google Earth.

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Figure 4
August 2024 Soil Vapor Sample Results

Port of Tacoma
Former Potter Property
1801 E Alexander Avenue
Tacoma, Washington

Legend

- Passive Soil Vapor Location (2024)
- Permanent Soil Vapor Monitoring Point (2024)
- Sub-Slab Vapor Pin, Sampled
- Sub-Slab Vapor Pin, Not Sampled
- Sub-Slab Soil Vapor CUL Exceedance
- Chain link gate
- Exterior door
- Building
- Property

Notes
All features and sample locations are approximate.
Sub-slab soil gas CUL exceedances are based on MTCA Method B or Method C CULs.
Samples collected from the permanent soil vapor points and passive soil vapor sample locations did not exceed their respective screening criteria.
CUL = cleanup level.
MTCA = Model Toxics Control Act.

0 20
Feet

Data Sources
Aerial photograph obtained from Google Earth.

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Tables

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Table 1
Passive Vapor Sampler and Soil Vapor Point Completion Details
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Location ID	Location Type	Permanent or Temporary	Surface Completion	Installation Date	Installation Depth (ft bgs)	Sample Interval (ft bgs)
TWA-PSV-01	Passive Vapor Sampler	Temporary	Flush	08/13/24	2	1 - 2
TWA-PSV-02	Passive Vapor Sampler	Temporary	Flush	08/13/24	2	1 - 2
TWA-PSV-03	Passive Vapor Sampler	Temporary	Flush	08/13/24	2	1 - 2
TWA-PSV-04	Passive Vapor Sampler	Temporary	Flush	08/13/24	2	1 - 2
TWA-PSV-05	Passive Vapor Sampler	Temporary	Flush	08/13/24	2	1 - 2
TWA-SV-46	Soil Vapor Point	Permanent	Stick-up Monument[(a)]	08/12/24	2	1.5 - 2
TWA-SV-47	Soil Vapor Point	Permanent	Stick-up Monument[(a)]	08/12/24	2	1.5 - 2
TWA-SV-48	Soil Vapor Point	Permanent	Stick-up Monument[(a)]	08/12/24	2	1.5 - 2

Notes

ft bgs = feet below ground surface.

[(a)]Permanent soil vapor points were completed in stick-up monuments surrounded by concrete to approximately 1 foot above ground surface.

Table 2
Summary of Sub-slab and Soil Vapor Analytical Results
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Location:	Screening Criteria[a][1]		TWA-SV-41	TWA-SV-42	TWA-SV-43	TWA-SV-44		TWA-SV-45	TWA-SV-46	TWA-SV-47	TWA-SV-48
Sample Name:	MTCA Method B, Sub-slab Soil Gas	MTCA Method C, Sub-slab Soil Gas	TWA-SV-41-082724	TWA-SV-42-082724	TWA-SV-43-082724	TWA-SV-44-082724	TWA-SV-DUP-082724	TWA-SV-45-082724	TWA-SV-46-082724	TWA-SV-47-082724	TWA-SV-48-082724
Collection Date:			08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024
Permanent Gases (%)											
Carbon dioxide	NV	NV	0.188	2.99	3.92	2.61	2.6	3.71	0.694	0.915	0.887
Methane	NV	NV	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Oxygen	NV	NV	16.8	18.6	17.4	19.9	20	17.8	21.7	21.6	21.5
VOCs (ug/m^3)											
1,1,1-Trichloroethane	76,000	170,000	8.7 U	4.3 U	2.8 U	8.7 U	8.2 U	4.5 U	2.9 U	2.9 U	2.9 U
1,1,2,2-Tetrachloroethane	1.4	14	2.2 U	1.1 U	0.71 U	2.2 U	2.1 U	1.1 U	0.74 U	0.73 U	0.73 U
1,1,2-Trichloroethane	3	6.7	0.87 U	0.43 U	0.28 U	0.87 U	0.82 U	0.45 U	0.29 U	0.29 U	0.29 U
1,1-Dichloroethane	52	520	6.5 U	3.2 U	2.1 U	6.5 U	6.1 U	3.3 U	2.2 U	2.1 U	2.1 U
1,1-Dichloroethene	3,000	6,700	6.3 U	3.1 U	2.1 U	6.3 U	5.9 U	3.3 U	2.1 U	2.1 U	2.1 U
1,2,4-Trichlorobenzene	30	67	12 U	5.8 U	3.9 U	12 U	11 U	6.1 U	4 U	3.9 U	3.9 U
1,2,4-Trimethylbenzene	910	2,000	79 U	38 U	26 U	79 U	74 U	40 U	27 U	26 U	26 U
1,2-Dibromoethane	0.14	1.4	1.2 U	0.6 U	0.4 U	1.2 U	1.2 U	0.63 U	0.41 U	0.41 U	0.41 U
1,2-Dichlorobenzene	3,000	6,700	9.6 U	4.7 U	3.1 U	9.6 U	9 U	4.9 U	3.2 U	3.2 U	3.2 U
1,2-Dichloroethane	3.2	32	0.65 U	0.32 U	0.21 U	0.65 U	0.61 U	0.33 U	0.22 U	0.21 U	0.21 U
1,2-Dichloropropane	23	130	3.7 U	1.8 U	1.2 U	3.7 U	3.5 U	1.9 U	1.2 U	1.2 U	1.2 U
1,3,5-Trimethylbenzene	910	2,000	79 U	38 U	26 U	79 U	74 U	40 U	27 U	26 U	26 U
1,3-Butadiene	2.8	28	0.71 U	0.35 U	0.23 U	0.71 U	0.66 U	0.36 U	0.24 U	0.23 U	0.23 U
1,3-Dichlorobenzene	NV	NV	9.6 U	4.7 U	3.1 U	9.6 U	9 U	4.9 U	3.2 U	3.2 U	3.2 U
1,4-Dichlorobenzene	7.6	76	3.7 U	1.8 U	1.2 U	3.7 U	3.4 U	1.9 U	1.2 U	1.2 U	1.2 U
1,4-Dioxane	17	170	5.8 U	2.8 U	1.9 U	5.8 U	5.4 U	3 U	1.9 U	1.9 U	1.9 U
2,2,4-Trimethylpentane	NV	NV	75 U	36 U	24 U	75 U	70 U	38 U	25 U	25 U	25 U
2-Butanone	76,000	170,000	94 U	46 U	31 U	94 U	88 U	48 U	32 U	31 U	31 U
2-Chlorotoluene	NV	NV	83 U	40 U	27 U	83 U	78 U	42 U	28 U	27 U	27 U
2-Hexanone	460	1,000	66 U	32 U	21 U	66 U	61 U	34 U	22 U	22 U	22 U
2-Propanol	NV	NV	140 U	67 U	45 U	140 U	130 U	71 U	46 U	46 U	46 U
4-Ethyltoluene	NV	NV	79 U	38 U	26 U	79 U	74 U	40 U	27 U	26 U	26 U
4-Methyl-2-pentanone	46,000	100,000	130 U	64 U	43 U	130 U	120 U	67 U	44 U	43 U	43 U
Acetone	NV	NV	76 U	37 U	25 U	76 U	71 U	39 U	26 U	25 U	25 U
Acrolein	0.3	0.67	1.8 U	0.89 U	0.6 U	1.8 U	1.7 U	0.94 U	0.62 U	0.61 U	0.61 U
Allyl chloride	14	33	50 U	24 U	16 U	50 U	47 U	26 U	17 U	17 U	17 U
Benzene	11	110	5.1 U	2.5 U	1.7 U	5.1 U	4.8 U	2.6 U	1.7 U	1.7 U	1.7 U
Benzyl chloride	1.7	17	0.83 U	0.4 U	0.27 U	0.83 U	0.78 U	0.42 U	0.28 U	0.27 U	0.27 U
Bromodichloromethane	2.3	23	1.1 U	0.52 U	0.35 U	1.1 U	1 U	0.55 U	0.36 U	0.36 U	0.36 U
Bromoform	76	760	33 U	16 U	11 U	33 U	31 U	17 U	11 U	11 U	11 U
Bromomethane	76	170	62 U	30 U	20 U	62 U	58 U	32 U	21 U	21 U	21 U
Carbon disulfide	11,000	23,000	100 U	49 U	32 U	100 U	93 U	51 U	34 U	33 U	33 U
Carbon tetrachloride	14	140	5 U	2.5 U	1.6 U	5 U	4.7 U	2.6 U	1.7 U	1.7 U	1.7 U
Chlorobenzene	760	1,700	7.4 U	3.6 U	2.4 U	7.4 U	6.9 U	3.8 U	2.5 U	2.4 U	2.4 U
Chloroethane	150,000	330,000	42 U	21 U	14 U	42 U	40 U	22 U	14 U	14 U	14 U
Chloroform	3.6	36	2.3	0.38 U	0.25 U	5.7	6.1	0.4 U	0.32	0.62	1

Table 2
Summary of Sub-slab and Soil Vapor Analytical Results
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Location:	Screening Criteria[a][1]		TWA-SV-41	TWA-SV-42	TWA-SV-43	TWA-SV-44		TWA-SV-45	TWA-SV-46	TWA-SV-47	TWA-SV-48
Sample Name:	MTCA Method B, Sub-slab Soil Gas	MTCA Method C, Sub-slab Soil Gas	TWA-SV-41-082724	TWA-SV-42-082724	TWA-SV-43-082724	TWA-SV-44-082724	TWA-SV-DUP-082724	TWA-SV-45-082724	TWA-SV-46-082724	TWA-SV-47-082724	TWA-SV-48-082724
Collection Date:			08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024
Chloromethane	1,400	3,000	59 U	29 U	19 U	59 U	56 U	30 U	20 U	20 U	20 U
cis-1,2-Dichloroethene	610	1,300	6.3 U	3.1 U	2.1 U	39	41	3.3 U	2.1 U	2.1 U	2.1 U
cis-1,3-Dichloropropene	NV	NV	15 U	7.1 U	4.7 U	15 U	14 U	7.4 U	4.9 U	4.8 U	4.8 U
Cyclohexane	91,000	200,000	110 U	54 U	36 U	110 U	100 U	56 U	37 U	36 U	36 U
Dibromochloromethane	NV	NV	1.4 U	0.66 U	0.44 U	1.4 U	1.3 U	0.7 U	0.46 U	0.45 U	0.45 U
Dichlorodifluoromethane (Freon 12)	1,500	3,300	16 U	7.7 U	5.1 U	16 U	15 U	8.1 U	5.3 U	5.2 U	50
Ethanol	NV	NV	120 U	59 U	39 U	120 U	110 U	62 U	41 U	40 U	40 U
Ethyl acetate	1,100	2,300	120 U	56 U	37 U	120 U	110 U	59 U	39 U	38 U	38 U
Ethylbenzene	15,000	33,000	6.9 U	8.8	5	6.9 U	6.5 U	7.8	2.3 U	2.3 U	2.3 U
Freon 113	76,000	170,000	25 U	12 U	8 U	25 U	23 U	13 U	8.3 U	8.1 U	8.1 U
Freon 114	NV	NV	34 U	16 U	11 U	34 U	31 U	17 U	11 U	11 U	11 U
Heptane	6,100	13,000	66 U	32 U	21 U	66 U	61 U	34 U	22 U	22 U	22 U
Hexachlorobutadiene	3.8	38	3.4 UJ	1.7 U	1.1 U	3.4 U	3.2 U	1.7 U	1.2 U	1.1 U	1.1 U
Isopropylbenzene	6,100	13,000	160 U	77 U	51 U	160 U	150 U	81 U	53 U	52 U	52 U
m,p-Xylene	NV	NV	16	31	17	16	16	27	4.7 U	4.6 U	5.7
Methyl methacrylate	11,000	23,000	66 U	32 U	21 U	66 U	61 U	34 U	22 U	22 U	22 U
Methyl tert-butyl ether	320	3,200	120 U	56 U	37 U	120 U	110 U	59 U	39 U	38 U	38 U
Methylene chloride	2,200	20,000	560 U	270 U	180 U	560 U	520 U	280 U	190 U	180 U	180 U
Naphthalene	2.5	25	4.2 U	2 U	1.4 U	4.2 U	3.9 U	2.1 U	1.4 U	1.4 U	1.4 U
n-Butane	NV	NV	76 U	37 U	25 U	76 U	71 U	39 U	26 U	25 U	25 U
n-Hexane	11,000	23,000	56 U	27 U	18 U	56 U	53 U	29 U	19 U	19 U	19 U
n-Nonane	NV	NV	84 U	41 U	27 U	84 U	79 U	43 U	28 U	28 U	28 U
n-Pentane	NV	NV	94 U	46 U	31 U	94 U	89 U	48 U	32 U	31 U	31 U
n-Propylbenzene	15,000	33,000	79 U	38 U	26 U	79 U	74 U	40 U	27 U	26 U	26 U
o-Xylene	NV	NV	6.9 U	7	3.8	6.9 U	6.5 U	6.1	2.3 U	2.3 U	2.3 U
Propylene	NV	NV	22 U	11 U	7.2 U	22 U	21 U	11 U	7.4 U	7.3 U	7.3 U
Styrene	15,000	33,000	14 U	6.6 U	4.4 U	14 U	13 U	7 U	4.6 U	4.5 U	4.5 U
tert-Butyl alcohol	NV	NV	190 U	95 U	63 U	190 U	180 U	99 U	65 U	64 U	64 U
Tetrachloroethene	320	1,300	7,900	840	290	10,000	10,000	2,000	37 U	36 U	36 U
Tetrahydrofuran	30,000	67,000	14 U	6.9 U	4.6 U	14 U	13 U	7.3 U	4.8 U	4.7 U	4.7 U
Toluene	76,000	170,000	120 U	59 U	39 U	120 U	110 U	62 U	41 U	40 U	40 U
trans-1,2-Dichloroethene	610	1,300	6.3 U	3.1 U	2.1 U	190	200	3.3 U	2.1 U	2.1 U	2.1 U
trans-1,3-Dichloropropene	NV	NV	7.3 U	3.5 U	2.4 U	7.3 U	6.8 U	3.7 U	2.5 U	2.4 U	2.4 U
Trichloroethene	11	67	100	1.7 U	0.56 U	1,200 [b][2]	1,200 [b][2]	4.4 U	0.58 U	0.57 U	0.57 U
Trichlorofluoromethane (Freon 11)	11,000	23,000	36 U	18 U	12 U	36 U	34 U	18 U	210	26	97
Vinyl acetate	3,000	6,700	110 U	55 U	37 U	110 U	110 U	58 U	38 U	37 U	37 U
Vinyl bromide	5.6	56	7 U	3.4 U	2.3 U	7 U	6.6 U	3.6 U	2.4 U	2.3 U	2.3 U
Vinyl chloride	9.5	95	4.1 U	2 U	1.3 U	4.1 U	3.8 U	2.1 U	1.4 U	1.4 U	1.4 U
Xylenes, total[c]	1,500	3,300	19	38	20.8	19	19	33.1	4.7 U	4.6 U	6.9

Table 2
Summary of Sub-slab and Soil Vapor Analytical Results
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Location:	Screening Criteria[a][1]		TWA-SV-41	TWA-SV-42	TWA-SV-43	TWA-SV-44		TWA-SV-45	TWA-SV-46	TWA-SV-47	TWA-SV-48
Sample Name:	MTCA Method B, Sub-slab Soil Gas	MTCA Method C, Sub-slab Soil Gas	TWA-SV-41-082724	TWA-SV-42-082724	TWA-SV-43-082724	TWA-SV-44-082724	TWA-SV-DUP-082724	TWA-SV-45-082724	TWA-SV-46-082724	TWA-SV-47-082724	TWA-SV-48-082724
Collection Date:			08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024
APH (ug/m^3)											
C5-C8 Aliphatic hydrocarbons	NV	NV	1,200 U	880	480	1,200 U	1,100 U	610 U	520	470	490
C9-C12 Aliphatic hydrocarbons	NV	NV	400 U	190 U	130 U	400 U	370 U	200 U	130 U	130 U	130 U
C9-C10 Aromatic hydrocarbons	NV	NV	400 U	190 U	130 U	400 U	370 U	200 U	130 U	130 U	130 U
TPH (ug/m^3)											
TPH[d][2]	1,500[e]	1,500[e]	1,090	1,150	657	1,090	1,000	579	676	625	650

Table 2
Summary of Sub-slab and Soil Vapor Analytical Results
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Notes

Shading (color key below) indicates values that exceed screening criteria; non-detects (U and UJ) were not compared with screening criteria. When multiple criteria are exceeded, results are shaded based on the highest value.

MTCA Method B, Vapor Intrusion, Sub-slab Soil Gas, minimum of Cancer or Non-Cancer Cleanup Level

MTCA Method C, Vapor Intrusion, Sub-slab Soil Gas, minimum of Cancer or Non-Cancer Cleanup Level

APH = air-phase petroleum hydrocarbons.

MTCA = Model Toxics Control Act.

NV = no value.

TPH = total petroleum hydrocarbons.

U = result is non-detect at the method reporting limit.

ug/m^3 = micrograms per cubic meter.

UJ = result is non-detect with an estimated reporting limit.

VOC = volatile organic compound.

[a]MTCA cleanup levels for commercial workers are provided in CLARC, but were not applied to maintain consistency with previous reports. Of the MTCA levels applied, the lower of cancer and noncancer values are shown.

[b]This concentration also exceeds the TCE non-residential short-term VI screening level for sub-slab soil gas of 250 ug/m^3 (Ecology 2022).

[c]Total xylenes is the sum of m,p-xylene and o-xylene. When results are non-detect, half the reporting limit is used. When both results are non-detect, the highest reporting limit is shown.

[d]TPH is the sum of benzene, ethylbenzene, naphthalene, toluene, total xylenes, C5-C8 aliphatic hydrocarbons, C9-C12 aliphatic hydrocarbons, and C9-C10 aromatic hydrocarbons. Non-detect results are summed at one-half the reporting limit. When all results are non-detect, the highest reporting limit is shown.

[e]TPH generic cleanup level.

References

[1]Ecology. 2024. *Cleanup Levels and Risk Calculation (CLARC) table.* Washington State Department of Ecology—Toxics Cleanup Program. July.

[2]Ecology. 2022. *Guidance for Evaluating Vapor Intrusion in Washington State.* Washington State Department of Ecology—Toxics Cleanup Program, Publication No. 09-09-047, Olympia, Washington. March.

Table 3
Summary of Passive Soil Vapor Analytical Results
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Location:	Screening Criteria[a][1]		TWA-PSV-01	TWA-PSV-02	TWA-PSV-03	TWA-PSV-04	TWA-PSV-05	
Sample Name:	MTCA Method B, Sub-slab Soil Gas	MTCA Method C, Sub-slab Soil Gas	TWA-PSV-01	TWA-PSV-02	TWA-PSV-03	TWA-PSV-04	TWA-PSV-05	TWA-PSV-05-DUP
Collection Date:			08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024	08/27/2024
VOCs (ug/m^3)								
1,1,1,2-Tetrachloroethane	11	110	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U
1,1,1-Trichloroethane	76,000	170,000	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U	0.472 U
1,1,2-Trichloroethane	3	6.7	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	52	520	0.584 U	0.584 U	0.584 U	0.584 U	0.584 U	0.584 U
1,1-Dichloroethene	3,000	6,700	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
1,2,3-Trichlorobenzene	NV	NV	1.27 U	1.27 U	1.27 U	1.27 U	1.27 U	1.27 U
1,2,3-Trichloropropane	4.6	10	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U
1,2,4-Trichlorobenzene	30	67	1.27 U	1.27 U	1.27 U	1.27 U	1.27 U	1.27 U
1,2,4-Trimethylbenzene	910	2,000	1.49 U	1.49 U	1.49 U	1.49 U	1.49 U	1.49 U
1,2-Dibromoethane	0.14	1.4	1.27 U	1.27 U	1.27 U	1.27 U	1.27 U	1.27 U
1,2-Dichlorobenzene	3,000	6,700	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U
1,2-Dichloroethane	3.2	32	0.886 U	0.886 U	0.886 U	0.886 U	0.886 U	0.886 U
1,3,5-Trimethylbenzene	910	2,000	1.49 U	1.49 U	1.49 U	1.49 U	1.49 U	1.49 U
1,3-Dichlorobenzene	NV	NV	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U
1,4-Dichlorobenzene	7.6	76	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U	0.661 U
1,4-Dioxane	17	170	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U	1.21 U
2-Methylnaphthalene	NV	NV	0.653 U	0.653 U	0.653 U	0.653 U	0.653 U	0.653 U
Benzene	11	110	2.34 U	2.34 U	2.34 U	2.34 U	2.34 U	2.34 U
Carbon tetrachloride	14	140	1.15 U	1.15 U	1.15 U	1.15 U	1.15 U	1.15 U
Chlorobenzene	760	1,700	0.584 U	0.584 U	0.584 U	0.584 U	0.584 U	0.584 U
Chloroform	3.6	36	1.42 U	1.42 U	1.42 U	1.42 U	1.42 U	1.42 U
cis-1,2-Dichloroethene	610	1,300	0.936 U	0.936 U	0.936 U	0.936 U	0.936 U	0.936 U
Ethylbenzene	15,000	33,000	1.46 U	1.46 U	1.46 U	1.46 U	1.46 U	1.46 U
Freon 113	76,000	170,000	0.557 U	0.557 U	0.557 U	0.557 U	0.557 U	0.557 U
Isopropylbenzene	6,100	13,000	1.49 U	1.49 U	1.49 U	1.49 U	1.49 U	1.49 U
m,p-Xylene	NV	NV	1.41 U	1.41 U	1.41 U	1.41 U	1.41 U	1.41 U
Methyl tert-butyl ether	320	3,200	2.48 U	2.48 U	2.48 U	2.48 U	2.48 U	2.48 U
Methylene chloride	2,200	20,000	1.42 U	1.42 U	1.42 U	1.42 U	1.42 U	1.42 U
Naphthalene	2.5	25	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
o-Xylene	NV	NV	1.41 U	1.41 U	1.41 U	1.41 U	1.41 U	1.41 U
Tetrachloroethene	320	1,300	1.21 U	3.1	1.21 U	1.21 U	1.21 U	1.21 U
Toluene	76,000	170,000	3.1 U	8.44	3.1 U	3.1 U	3.1 U	3.1 U
trans-1,2-Dichloroethene	610	1,300	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U	1.13 U
Trichloroethene	11	67	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U
Vinyl chloride	9.5	95	0.612 U	0.612 U	0.612 U	0.612 U	0.612 U	0.612 U
Xylenes, total[b]	1,500	3,300	1.41 U	1.41 U	1.41 U	1.41 U	1.41 U	1.41 U
APH (ug/m^3)								
C5-C8 Aliphatic hydrocarbons	NV	NV	6.53 U	6.53 U	11.7	6.53 U	6.53 U	6.53 U
C9-C12 Aliphatic hydrocarbons	NV	NV	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
C9-C10 Aromatic hydrocarbons	NV	NV	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U	0.62 U
TPH (ug/m^3)								
TPH[c][2]	1,500[d]	1,500[d]	6.53 U	16.5	18	6.53 U	6.53 U	6.53 U

Table 3
Summary of Passive Soil Vapor Analytical Results
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Notes

Detected results were compared with screening criteria. There were no exceedances.

APH = air-phase petroleum hydrocarbons.

MTCA = Model Toxics Control Act.

NV = no value.

TPH = total petroleum hydrocarbons.

U = result is non-detect at the method reporting limit.

ug/m^3 = micrograms per cubic meter.

VOC = volatile organic compound.

[a]MTCA cleanup levels for a commercial workers scenario are provided in CLARC, but were not applied to maintain consistency with screening criteria in previous reports. Of the MTCA levels applied, the lower of cancer and noncancer values are shown.

[b]Total xylenes is the sum of m,p-xylene and o-xylene. When both results are non-detect, the highest reporting limit is shown.

[c]TPH is the sum of benzene, ethylbenzene, naphthalene, toluene, total xylenes, C5-C8 aliphatic hydrocarbons, C9-C12 aliphatic hydrocarbons, and C9-C10 aromatic hydrocarbons. Non-detect results are summed at one-half the reporting limit. When all results are non-detect, the highest reporting limit is shown.

[d]TPH generic cleanup level.

References

[1]Ecology. 2024. *Cleanup Levels and Risk Calculation (CLARC) table.* Washington State Department of Ecology—Toxics Cleanup Program. July.

[2]Ecology. 2022. *Guidance for Evaluating Vapor Intrusion in Washington State.* Washington State Department of Ecology—Toxics Cleanup Program, Publication No. 09-09-047, Olympia, Washington. March.

Attachment A

Field Photographs

MAUL FOSTER ALONGI

Photographs

Project Name: Vapor Intrusion Additional Data Gaps
Project Number: M0615.20.013
Location: 1801 E Alexander Avenue, Tacoma, Washington

Photo No. 1.

Description

Sewer line located near the southern portion of the Shop Building adjacent to the Property boundary, looking northeast.

Photo No. 2.

Description

Installation of permanent vapor monitoring point at TWA-SV-47.

Photographs

Project Name: Vapor Intrusion Additional Data Gaps
Project Number: M0615.20.013
Location: 1801 E Alexander Avenue, Tacoma, Washington

Photo No. 3.

Description

Completed permanent soil vapor monitoring point, TWA-SV-46.

Photo No. 4.

Description

Vegetated area between the Shop Building and Property boundary, looking southwest.

Photographs

Project Name: Vapor Intrusion Additional Data Gaps
Project Number: M0615.20.013
Location: 1801 E Alexander Avenue, Tacoma, Washington

Photo No. 5.

Description

Passive soil vapor sampling kit and supplies.

Photo No. 6.

Description

Installation of metal pipe for deployment of passive soil vapor sampler.

Photographs

Project Name: Vapor Intrusion Additional Data Gaps
Project Number: M0615.20.013
Location: 1801 E Alexander Avenue, Tacoma, Washington

Photo No. 7.

Description

Passive soil vapor sampler sealed in metal pipe with aluminum foil at TWA-PSV-01.

Photo No. 8.

Description

Passive soil vapor location TWA-PSV-05 after deployment of passive soil vapor sampler.

Photographs

Project Name: Vapor Intrusion Additional Data Gaps
Project Number: M0615.20.013
Location: 1801 E Alexander Avenue, Tacoma, Washington

Photo No. 9.

Description

Sub-slab vapor sampling with helium shroud at TWA-SV-42, looking southwest.

Photo No. 10.

Description

Preparing for sub-slab vapor sampling at TWA-SV-44 for collection of primary and duplicate vapor samples using a T-splitter.

Photographs

Project Name: Vapor Intrusion Additional Data Gaps
Project Number: M0615.20.013
Location: 1801 E Alexander Avenue, Tacoma, Washington

Photo No. 11.

Description

Collection of soil vapor sample in a Tedlar bag at TWA-SV-48.

Photo No. 12.

Description

Retrieval of passive soil vapor sampler at TWA-PSV-05.

Photographs

Project Name: Vapor Intrusion Additional Data Gaps
Project Number: M0615.20.013
Location: 1801 E Alexander Avenue, Tacoma, Washington

Photo No. 13.

Description

Passive soil vapor sampler after removal of retrieval wire, moisture, and soil from the exterior of the sampler.

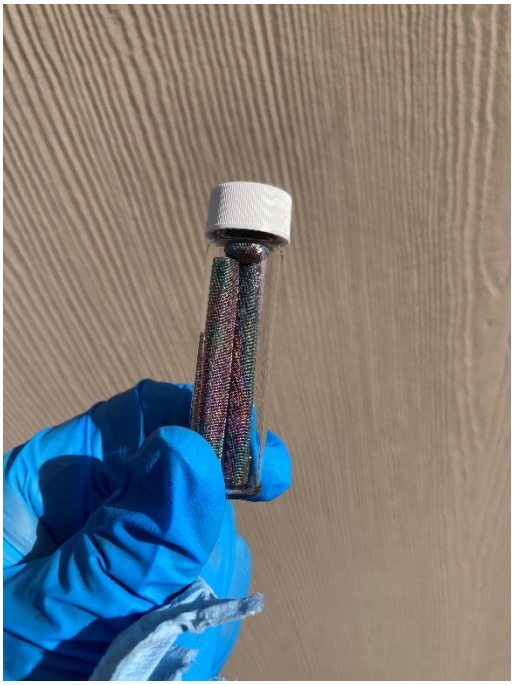

Photo No. 14.

Description

Passive soil vapor sampler in sealed bag, ready for shipment.

Attachment B

Field Sampling Data Sheets

MAUL FOSTER ALONGI

Sampler(s): Amanda Bixby, Brenden Murphy

Sub-slab and Soil Vapor Field Sampling Data Sheet
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

Sample ID	Date	Shut-in Test	Summa Canister ID	Manifold ID	Canister Size (L)	Purge				Helium		Sample			
						Begin Time	End Time	Volume (L)	Helium (ppm)	Indoor Ambient Air (ppm)	Under Shroud (%) (ideal = 40)	Begin Time	End Time	Initial Vacuum ("Hg)	Final Vacuum ("Hg)
TWA-SV-41-082724	08/27/24	Pass	2296	62	1	11:30	11:35	1	0	0	45.7	11:42	11:47	30	5
TWA-SV-42-082724	08/27/24	Pass	3312	71	1	11:00	11:05	1	0	0	42.2	11:09	11:14	28.5	5
TWA-SV-43-082724	08/27/24	Pass	3252	244	1	14:17	14:22	1	0	0	42.0	14:23	14:28	29	5
TWA-SV-44-082724	08/27/24	Pass	2302	280	1	12:30	12:35	1	0	0	43.0	12:38	12:44	29.5	5
TWA-SV-DUP-082724	08/27/24	Pass	8098	75	1	12:30	12:35	1	0	0	43.0	12:38	12:44	30+	5
TWA-SV-45-082724	08/27/24	Pass	2294	63	1	13:23	13:28	1	0	0	41.0	13:30	13:35	30+	5
TWA-SV-46-082724	08/27/24	Pass	9899	61	1	17:14	17:19	1	0	0	38.0	17:21	17:26	30+	5
TWA-SV-47-082724	08/27/24	Pass	3387	77	1	16:25	16:30	1	0	0	49.6	16:33	16:38	30	5
TWA-SV-48-082724	08/27/24	Pass	8538	54	1	15:43	15:48	1	0	0	45.3	15:50	15:55	30+	5

Notes

To avoid data rejection during validation, the amount of helium in the sample must be less than 5% of the helium concentration under the shroud. For example, if there is 50% helium in the shroud, your sample may contain up to 2.5%, (25,000 ppm) helium.

"Hg = inches of mercury.

ID = identification.

L = liter.

ppm = parts per million.

% = percent.

Sampler(s): Brenden Murphy

Passive Soil Vapor Field Sampling Data Sheet
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington

MAUL FOSTER ALONGI

Sample ID	Deployment Date	Deployment Time	Retrieval Date	Retrieval Time	Sampling Hole Depth (Inches bgs)	Surfacing Type (Soil, Asphalt, Concrete, Gravel)	Seal Intact?
TWA-PSV-01	8/13/2024	15:10	8/27/2024	15:10	24	Soil	Yes
TWA-PSV-02	8/13/2024	16:00	8/27/2024	16:00	24	Soil	Yes
TWA-PSV-03	8/13/2024	16:25	8/27/2024	16:25	24	Soil	Yes
TWA-PSV-04	8/13/2024	16:50	8/27/2024	16:50	24	Soil	Yes
TWA-PSV-05	8/13/2024	17:00	8/27/2024	17:00	24	Soil	Yes
TWA-PSV-05-DUP	8/13/2024	17:00	8/27/2024	17:00	24	Soil	Yes

Notes

bgs = below ground surface.

ID = identification.

Attachment C

Analytical Laboratory Reports

MAUL
FOSTER
ALONGI

Beacon Environmental
526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 240523H01

Laboratory Work Order: 0007984

Project Description:
Former Potter Property
Tacoma, WA

Prepared for:
Audrey Hackett
Maul Foster & Alongi, Inc.
2815 2nd Avenue, Suite 540
Seattle, WA 98121

Ryan W. Schneider
Senior Project Manager

September 10, 2024

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017, except compounds reported with ∉ are not included in Beacon's scope of accreditation. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

Steven C. Thornley
Laboratory Director

Peter B. Kelly
Quality Manager

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BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0007984-01	Trip 1	08/30/2024	TO-17 (Passive)	Air
Sampler Type:	Beacon Passive Sampler			
0007984-02	TWA-PSV-01	08/30/2024	TO-17 (Passive)	Soil Gas
Sampler Type:	Beacon Passive Sampler			
0007984-03	TWA-PSV-02	08/30/2024	TO-17 (Passive)	Soil Gas
Sampler Type:	Beacon Passive Sampler			
0007984-04	TWA-PSV-03	08/30/2024	TO-17 (Passive)	Soil Gas
Sampler Type:	Beacon Passive Sampler			
0007984-05	TWA-PSV-04	08/30/2024	TO-17 (Passive)	Soil Gas
Sampler Type:	Beacon Passive Sampler			
0007984-06	TWA-PSV-05	08/30/2024	TO-17 (Passive)	Soil Gas
Sampler Type:	Beacon Passive Sampler			
0007984-07	TWA-PSV-05-DUP	08/30/2024	TO-17 (Passive)	Soil Gas
Sampler Type:	Beacon Passive Sampler			

Project Completeness

Samples Received: 7
Samples Analyzed: 7

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Case Narrative

U.S. EPA Method TO-17

All samples were analyzed using thermal desorption-gas chromatography/mass spectrometry (TD-GC/MS) instrumentation following U.S. EPA Method TO-17, with laboratory results provided in micrograms per cubic meter (µg/m³). Laboratory QA/QC procedures included internal standards, surrogates, and blanks based on EPA Method TO-17. Analyses and reporting were under BEACON's Quality Assurance Project Plan.

Passive Soil-Gas Survey Notes

If sample locations are covered with or near the edge of an impervious surface (*e.g.*, asphalt or concrete), the concentrations of compounds in soil gas are higher than if the surfacing was not present. Therefore, the sample location conditions should be considered when comparing results between locations.

Survey findings are exclusive to this project and when the spatial relationships are compared with results of other BEACON Surveys it is necessary to incorporate information from both investigations (*e.g.*, depth to sources, soil types, porosity, soil moisture, presence of impervious surfacing, sample collection times).

Reporting Limits

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. All reported results are within the calibration range. The project method quantitation limit (MQL) is the limit of quantitation (LOQ) as noted in the data tables. Beacon determined uptake rates for a suite of compounds with the Beacon sampler for sampling in air. Beacon calculated the uptake rates for the remaining compounds using Graham's Law of Diffusion. The reported data includes LOQ limits.

Discussion

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017, except compounds reported with are not included in Beacon 's scope of accreditation.

End of Case Narrative

526 Underwood Lane
Bel Air, MD 21014 USA
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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Analytical Results

BEACON ENVIRONMENTAL

526 Underwood Lane
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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Summary of Compound Detections- Concentration

Lab Sample ID 0007984-03 — **TWA-PSV-02** — Soil Gas — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	File ID
Toluene	108-88-3	8.44		5.325	3.10	S24090309.D
Tetrachloroethene	127-18-4	3.10		5.77	1.21	S24090309.D

Lab Sample ID 0007984-04 — **TWA-PSV-03** — Soil Gas — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	File ID
Total Aliphatics C5-C8		11.7			6.53	

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Data Summary Table- Concentration

Compound	Frequency	LOQ (µg/m³)	Max Value (µg/m³)
Toluene	1	3.10	8.44
Tetrachloroethene	1	1.21	3.10
Total Aliphatics C5-C8	1	6.53	11.7

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Detailed Analytical Results

BEACON ENVIRONMENTAL

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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Lab Sample ID: 0007984-01

Trip 1

Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOQ (µg/m³)	RRT Eval	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.612	U	0.612	0.00	09/03/2024 16:09	S24090307.D
1,1-Dichloroethene	75-35-4	<1.50	U	1.50	0.00	09/03/2024 16:09	S24090307.D
Methylene Chloride	75-09-2	<1.42	U	1.42	0.00	09/03/2024 16:09	S24090307.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	0.557	0.00	09/03/2024 16:09	S24090307.D
trans-1,2-Dichloroethene	156-60-5	<1.13	U	1.13	0.00	09/03/2024 16:09	S24090307.D
Methyl-t-butyl ether	1634-04-4	<2.48	U	2.48	0.00	09/03/2024 16:09	S24090307.D
1,1-Dichloroethane	75-34-3	<0.584	U	0.584	0.00	09/03/2024 16:09	S24090307.D
cis-1,2-Dichloroethene	156-59-2	<0.936	U	0.936	0.00	09/03/2024 16:09	S24090307.D
Chloroform	67-66-3	<1.42	U	1.42	0.00	09/03/2024 16:09	S24090307.D
1,2-Dichloroethane	107-06-2	<0.886	U	0.886	0.00	09/03/2024 16:09	S24090307.D
1,1,1-Trichloroethane	71-55-6	<0.472	U	0.472	0.00	09/03/2024 16:09	S24090307.D
Carbon Tetrachloride	56-23-5	<1.15	U	1.15	0.00	09/03/2024 16:09	S24090307.D
Benzene	71-43-2	<2.34	U	2.34	0.00	09/03/2024 16:09	S24090307.D
Trichloroethene	79-01-6	<1.50	U	1.50	0.00	09/03/2024 16:09	S24090307.D
1,4-Dioxane	123-91-1	<1.21	U	1.21	0.00	09/03/2024 16:09	S24090307.D
1,1,2-Trichloroethane	79-00-5	<1.50	U	1.50	0.00	09/03/2024 16:09	S24090307.D
Toluene	108-88-3	<3.10	U	3.10	0.00	09/03/2024 16:09	S24090307.D
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	1.27	0.00	09/03/2024 16:09	S24090307.D
Tetrachloroethene	127-18-4	<1.21	U	1.21	0.00	09/03/2024 16:09	S24090307.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	1.21	0.00	09/03/2024 16:09	S24090307.D
Chlorobenzene	108-90-7	<0.584	U	0.584	0.00	09/03/2024 16:09	S24090307.D
Ethylbenzene	100-41-4	<1.46	U	1.46	0.00	09/03/2024 16:09	S24090307.D
p & m-Xylene	179601-23-1	<1.41	U	1.41	0.00	09/03/2024 16:09	S24090307.D
o-Xylene	95-47-6	<1.41	U	1.41	0.00	09/03/2024 16:09	S24090307.D
1,2,3-Trichloropropane	96-18-4	<0.661	U	0.661	0.00	09/03/2024 16:09	S24090307.D
Isopropylbenzene	98-82-8	<1.49	U	1.49	0.00	09/03/2024 16:09	S24090307.D
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	1.49	0.00	09/03/2024 16:09	S24090307.D
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	1.49	0.00	09/03/2024 16:09	S24090307.D
1,3-Dichlorobenzene	541-73-1	<0.661	U	0.661	0.00	09/03/2024 16:09	S24090307.D
1,4-Dichlorobenzene	106-46-7	<0.661	U	0.661	0.00	09/03/2024 16:09	S24090307.D
1,2-Dichlorobenzene	95-50-1	<0.661	U	0.661	0.00	09/03/2024 16:09	S24090307.D
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	1.27	0.00	09/03/2024 16:09	S24090307.D
Naphthalene	91-20-3	<0.620	U	0.620	0.00	09/03/2024 16:09	S24090307.D
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	1.27	0.00	09/03/2024 16:09	S24090307.D
2-Methylnaphthalene	91-57-6	<0.653	U	0.653	0.00	09/03/2024 16:09	S24090307.D
∉ Total Aliphatics C5-C8		<6.53		6.53	0.00	09/03/2024 16:09	
∉ Total Aliphatics C9-C12 (ug/m3)		<3.10		3.10	0.00	09/03/2024 16:09	
∉ Total Aromatics C9-C10	C9C10AROM	<0.620		0.620	0.00	09/03/2024 16:09	

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*RRT Eval*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*112%*	*70-130*		*0.00*	*09/03/2024 16:09*	*S24090307.D*
Surrogate: Toluene-d8	2037-26-5	*94.3%*	*70-130*		*0.00*	*09/03/2024 16:09*	*S24090307.D*
Surrogate: Bromofluorobenzene	460-00-4	*82.6%*	*70-130*		*0.00*	*09/03/2024 16:09*	*S24090307.D*

BEACON ENVIRONMENTAL

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1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Lab Sample ID: 0007984-02

TWA-PSV-01

Soil Gas

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOQ (µg/m³)	RRT Eval	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.612	U	0.612	0.00	09/03/2024 16:44	S24090308.D
1,1-Dichloroethene	75-35-4	<1.50	U	1.50	0.00	09/03/2024 16:44	S24090308.D
Methylene Chloride	75-09-2	<1.42	U	1.42	0.00	09/03/2024 16:44	S24090308.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	0.557	0.00	09/03/2024 16:44	S24090308.D
trans-1,2-Dichloroethene	156-60-5	<1.13	U	1.13	0.00	09/03/2024 16:44	S24090308.D
Methyl-t-butyl ether	1634-04-4	<2.48	U	2.48	0.00	09/03/2024 16:44	S24090308.D
1,1-Dichloroethane	75-34-3	<0.584	U	0.584	0.00	09/03/2024 16:44	S24090308.D
cis-1,2-Dichloroethene	156-59-2	<0.936	U	0.936	0.00	09/03/2024 16:44	S24090308.D
Chloroform	67-66-3	<1.42	U	1.42	0.00	09/03/2024 16:44	S24090308.D
1,2-Dichloroethane	107-06-2	<0.886	U	0.886	0.00	09/03/2024 16:44	S24090308.D
1,1,1-Trichloroethane	71-55-6	<0.472	U	0.472	0.00	09/03/2024 16:44	S24090308.D
Carbon Tetrachloride	56-23-5	<1.15	U	1.15	0.00	09/03/2024 16:44	S24090308.D
Benzene	71-43-2	<2.34	U	2.34	0.00	09/03/2024 16:44	S24090308.D
Trichloroethene	79-01-6	<1.50	U	1.50	0.00	09/03/2024 16:44	S24090308.D
1,4-Dioxane	123-91-1	<1.21	U	1.21	0.00	09/03/2024 16:44	S24090308.D
1,1,2-Trichloroethane	79-00-5	<1.50	U	1.50	0.00	09/03/2024 16:44	S24090308.D
Toluene	108-88-3	<3.10	U	3.10	0.00	09/03/2024 16:44	S24090308.D
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	1.27	0.00	09/03/2024 16:44	S24090308.D
Tetrachloroethene	127-18-4	<1.21	U	1.21	0.00	09/03/2024 16:44	S24090308.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	1.21	0.00	09/03/2024 16:44	S24090308.D
Chlorobenzene	108-90-7	<0.584	U	0.584	0.00	09/03/2024 16:44	S24090308.D
Ethylbenzene	100-41-4	<1.46	U	1.46	0.00	09/03/2024 16:44	S24090308.D
p & m-Xylene	179601-23-1	<1.41	U	1.41	0.00	09/03/2024 16:44	S24090308.D
o-Xylene	95-47-6	<1.41	U	1.41	0.00	09/03/2024 16:44	S24090308.D
1,2,3-Trichloropropane	96-18-4	<0.661	U	0.661	0.00	09/03/2024 16:44	S24090308.D
Isopropylbenzene	98-82-8	<1.49	U	1.49	0.00	09/03/2024 16:44	S24090308.D
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	1.49	0.00	09/03/2024 16:44	S24090308.D
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	1.49	0.00	09/03/2024 16:44	S24090308.D
1,3-Dichlorobenzene	541-73-1	<0.661	U	0.661	0.00	09/03/2024 16:44	S24090308.D
1,4-Dichlorobenzene	106-46-7	<0.661	U	0.661	0.00	09/03/2024 16:44	S24090308.D
1,2-Dichlorobenzene	95-50-1	<0.661	U	0.661	0.00	09/03/2024 16:44	S24090308.D
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	1.27	0.00	09/03/2024 16:44	S24090308.D
Naphthalene	91-20-3	<0.620	U	0.620	0.00	09/03/2024 16:44	S24090308.D
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	1.27	0.00	09/03/2024 16:44	S24090308.D
2-Methylnaphthalene	91-57-6	<0.653	U	0.653	0.00	09/03/2024 16:44	S24090308.D
∉ Total Aliphatics C5-C8		<6.53		6.53	0.00	09/03/2024 16:44	
∉ Total Aliphatics C9-C12 (ug/m3)		<3.10		3.10	0.00	09/03/2024 16:44	
∉ Total Aromatics C9-C10	C9C10AROM	<0.620		0.620	0.00	09/03/2024 16:44	

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*RRT Eval*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*122%*	*70-130*		*0.00*	*09/03/2024 16:44*	*S24090308.D*
Surrogate: Toluene-d8	2037-26-5	*94.9%*	*70-130*		*0.00*	*09/03/2024 16:44*	*S24090308.D*
Surrogate: Bromofluorobenzene	460-00-4	*85.4%*	*70-130*		*0.00*	*09/03/2024 16:44*	*S24090308.D*

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Lab Sample ID: 0007984-03

TWA-PSV-02

Soil Gas

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOQ (µg/m³)	RRT Eval	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.612	U	0.612	0.00	09/03/2024 17:18	S24090309.D
1,1-Dichloroethene	75-35-4	<1.50	U	1.50	0.00	09/03/2024 17:18	S24090309.D
Methylene Chloride	75-09-2	<1.42	U	1.42	0.00	09/03/2024 17:18	S24090309.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	0.557	0.00	09/03/2024 17:18	S24090309.D
trans-1,2-Dichloroethene	156-60-5	<1.13	U	1.13	0.00	09/03/2024 17:18	S24090309.D
Methyl-t-butyl ether	1634-04-4	<2.48	U	2.48	0.00	09/03/2024 17:18	S24090309.D
1,1-Dichloroethane	75-34-3	<0.584	U	0.584	0.00	09/03/2024 17:18	S24090309.D
cis-1,2-Dichloroethene	156-59-2	<0.936	U	0.936	0.00	09/03/2024 17:18	S24090309.D
Chloroform	67-66-3	<1.42	U	1.42	0.00	09/03/2024 17:18	S24090309.D
1,2-Dichloroethane	107-06-2	<0.886	U	0.886	0.00	09/03/2024 17:18	S24090309.D
1,1,1-Trichloroethane	71-55-6	<0.472	U	0.472	0.00	09/03/2024 17:18	S24090309.D
Carbon Tetrachloride	56-23-5	<1.15	U	1.15	0.00	09/03/2024 17:18	S24090309.D
Benzene	71-43-2	<2.34	U	2.34	0.00	09/03/2024 17:18	S24090309.D
Trichloroethene	79-01-6	<1.50	U	1.50	0.00	09/03/2024 17:18	S24090309.D
1,4-Dioxane	123-91-1	<1.21	U	1.21	0.00	09/03/2024 17:18	S24090309.D
1,1,2-Trichloroethane	79-00-5	<1.50	U	1.50	0.00	09/03/2024 17:18	S24090309.D
Toluene	108-88-3	**8.44**		3.10	0.00	09/03/2024 17:18	S24090309.D
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	1.27	0.00	09/03/2024 17:18	S24090309.D
Tetrachloroethene	127-18-4	**3.10**		1.21	0.00	09/03/2024 17:18	S24090309.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	1.21	0.00	09/03/2024 17:18	S24090309.D
Chlorobenzene	108-90-7	<0.584	U	0.584	0.00	09/03/2024 17:18	S24090309.D
Ethylbenzene	100-41-4	<1.46	U	1.46	0.00	09/03/2024 17:18	S24090309.D
p & m-Xylene	179601-23-1	<1.41	U	1.41	0.00	09/03/2024 17:18	S24090309.D
o-Xylene	95-47-6	<1.41	U	1.41	0.00	09/03/2024 17:18	S24090309.D
1,2,3-Trichloropropane	96-18-4	<0.661	U	0.661	0.00	09/03/2024 17:18	S24090309.D
Isopropylbenzene	98-82-8	<1.49	U	1.49	0.00	09/03/2024 17:18	S24090309.D
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	1.49	0.00	09/03/2024 17:18	S24090309.D
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	1.49	0.00	09/03/2024 17:18	S24090309.D
1,3-Dichlorobenzene	541-73-1	<0.661	U	0.661	0.00	09/03/2024 17:18	S24090309.D
1,4-Dichlorobenzene	106-46-7	<0.661	U	0.661	0.00	09/03/2024 17:18	S24090309.D
1,2-Dichlorobenzene	95-50-1	<0.661	U	0.661	0.00	09/03/2024 17:18	S24090309.D
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	1.27	0.00	09/03/2024 17:18	S24090309.D
Naphthalene	91-20-3	<0.620	U	0.620	0.00	09/03/2024 17:18	S24090309.D
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	1.27	0.00	09/03/2024 17:18	S24090309.D
2-Methylnaphthalene	91-57-6	<0.653	U	0.653	0.00	09/03/2024 17:18	S24090309.D
∉ Total Aliphatics C5-C8		<6.53		6.53	0.00	09/03/2024 17:18	
∉ Total Aliphatics C9-C12 (ug/m3)		<3.10		3.10	0.00	09/03/2024 17:18	
∉ Total Aromatics C9-C10	C9C10AROM	<0.620		0.620	0.00	09/03/2024 17:18	

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*RRT Eval*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*116%*	*70-130*		*0.00*	*09/03/2024 17:18*	*S24090309.D*
Surrogate: Toluene-d8	2037-26-5	*93.4%*	*70-130*		*0.00*	*09/03/2024 17:18*	*S24090309.D*
Surrogate: Bromofluorobenzene	460-00-4	*80.1%*	*70-130*		*0.00*	*09/03/2024 17:18*	*S24090309.D*

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Lab Sample ID: 0007984-04

TWA-PSV-03

Soil Gas

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOQ (µg/m³)	RRT Eval	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.612	U	0.612	0.00	09/03/2024 17:54	S24090310.D
1,1-Dichloroethene	75-35-4	<1.50	U	1.50	0.00	09/03/2024 17:54	S24090310.D
Methylene Chloride	75-09-2	<1.42	U	1.42	0.01	09/03/2024 17:54	S24090310.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	0.557	0.00	09/03/2024 17:54	S24090310.D
trans-1,2-Dichloroethene	156-60-5	<1.13	U	1.13	0.00	09/03/2024 17:54	S24090310.D
Methyl-t-butyl ether	1634-04-4	<2.48	U	2.48	0.00	09/03/2024 17:54	S24090310.D
1,1-Dichloroethane	75-34-3	<0.584	U	0.584	0.00	09/03/2024 17:54	S24090310.D
cis-1,2-Dichloroethene	156-59-2	<0.936	U	0.936	0.00	09/03/2024 17:54	S24090310.D
Chloroform	67-66-3	<1.42	U	1.42	0.00	09/03/2024 17:54	S24090310.D
1,2-Dichloroethane	107-06-2	<0.886	U	0.886	0.00	09/03/2024 17:54	S24090310.D
1,1,1-Trichloroethane	71-55-6	<0.472	U	0.472	0.00	09/03/2024 17:54	S24090310.D
Carbon Tetrachloride	56-23-5	<1.15	U	1.15	0.00	09/03/2024 17:54	S24090310.D
Benzene	71-43-2	<2.34	U	2.34	0.00	09/03/2024 17:54	S24090310.D
Trichloroethene	79-01-6	<1.50	U	1.50	0.00	09/03/2024 17:54	S24090310.D
1,4-Dioxane	123-91-1	<1.21	U	1.21	0.00	09/03/2024 17:54	S24090310.D
1,1,2-Trichloroethane	79-00-5	<1.50	U	1.50	0.00	09/03/2024 17:54	S24090310.D
Toluene	108-88-3	<3.10	U	3.10	0.00	09/03/2024 17:54	S24090310.D
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	1.27	0.00	09/03/2024 17:54	S24090310.D
Tetrachloroethene	127-18-4	<1.21	U	1.21	0.00	09/03/2024 17:54	S24090310.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	1.21	0.00	09/03/2024 17:54	S24090310.D
Chlorobenzene	108-90-7	<0.584	U	0.584	0.00	09/03/2024 17:54	S24090310.D
Ethylbenzene	100-41-4	<1.46	U	1.46	0.00	09/03/2024 17:54	S24090310.D
p & m-Xylene	179601-23-1	<1.41	U	1.41	0.00	09/03/2024 17:54	S24090310.D
o-Xylene	95-47-6	<1.41	U	1.41	0.00	09/03/2024 17:54	S24090310.D
1,2,3-Trichloropropane	96-18-4	<0.661	U	0.661	0.00	09/03/2024 17:54	S24090310.D
Isopropylbenzene	98-82-8	<1.49	U	1.49	0.00	09/03/2024 17:54	S24090310.D
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	1.49	0.00	09/03/2024 17:54	S24090310.D
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	1.49	0.00	09/03/2024 17:54	S24090310.D
1,3-Dichlorobenzene	541-73-1	<0.661	U	0.661	0.00	09/03/2024 17:54	S24090310.D
1,4-Dichlorobenzene	106-46-7	<0.661	U	0.661	0.00	09/03/2024 17:54	S24090310.D
1,2-Dichlorobenzene	95-50-1	<0.661	U	0.661	0.00	09/03/2024 17:54	S24090310.D
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	1.27	0.00	09/03/2024 17:54	S24090310.D
Naphthalene	91-20-3	<0.620	U	0.620	0.00	09/03/2024 17:54	S24090310.D
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	1.27	0.00	09/03/2024 17:54	S24090310.D
2-Methylnaphthalene	91-57-6	<0.653	U	0.653	0.00	09/03/2024 17:54	S24090310.D
≠ **Total Aliphatics C5-C8**		**11.7**		6.53	0.00	09/03/2024 17:54	
≠ Total Aliphatics C9-C12 (ug/m3)		<3.10		3.10	0.00	09/03/2024 17:54	
≠ Total Aromatics C9-C10	C9C10AROM	<0.620		0.620	0.00	09/03/2024 17:54	

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*RRT Eval*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*117%*	*70-130*		*0.00*	*09/03/2024 17:54*	*S24090310.D*
Surrogate: Toluene-d8	2037-26-5	*96.9%*	*70-130*		*0.00*	*09/03/2024 17:54*	*S24090310.D*
Surrogate: Bromofluorobenzene	460-00-4	*81.3%*	*70-130*		*0.00*	*09/03/2024 17:54*	*S24090310.D*

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Lab Sample ID: 0007984-05

TWA-PSV-04

Soil Gas

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOQ (µg/m³)	RRT Eval	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.612	U	0.612	0.00	09/03/2024 18:29	S24090311.D
1,1-Dichloroethene	75-35-4	<1.50	U	1.50	0.00	09/03/2024 18:29	S24090311.D
Methylene Chloride	75-09-2	<1.42	U	1.42	0.00	09/03/2024 18:29	S24090311.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	0.557	0.00	09/03/2024 18:29	S24090311.D
trans-1,2-Dichloroethene	156-60-5	<1.13	U	1.13	0.00	09/03/2024 18:29	S24090311.D
Methyl-t-butyl ether	1634-04-4	<2.48	U	2.48	0.00	09/03/2024 18:29	S24090311.D
1,1-Dichloroethane	75-34-3	<0.584	U	0.584	0.00	09/03/2024 18:29	S24090311.D
cis-1,2-Dichloroethene	156-59-2	<0.936	U	0.936	0.00	09/03/2024 18:29	S24090311.D
Chloroform	67-66-3	<1.42	U	1.42	0.00	09/03/2024 18:29	S24090311.D
1,2-Dichloroethane	107-06-2	<0.886	U	0.886	0.00	09/03/2024 18:29	S24090311.D
1,1,1-Trichloroethane	71-55-6	<0.472	U	0.472	0.00	09/03/2024 18:29	S24090311.D
Carbon Tetrachloride	56-23-5	<1.15	U	1.15	0.00	09/03/2024 18:29	S24090311.D
Benzene	71-43-2	<2.34	U	2.34	0.00	09/03/2024 18:29	S24090311.D
Trichloroethene	79-01-6	<1.50	U	1.50	0.00	09/03/2024 18:29	S24090311.D
1,4-Dioxane	123-91-1	<1.21	U	1.21	0.00	09/03/2024 18:29	S24090311.D
1,1,2-Trichloroethane	79-00-5	<1.50	U	1.50	0.00	09/03/2024 18:29	S24090311.D
Toluene	108-88-3	<3.10	U	3.10	0.00	09/03/2024 18:29	S24090311.D
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	1.27	0.00	09/03/2024 18:29	S24090311.D
Tetrachloroethene	127-18-4	<1.21	U	1.21	0.00	09/03/2024 18:29	S24090311.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	1.21	0.00	09/03/2024 18:29	S24090311.D
Chlorobenzene	108-90-7	<0.584	U	0.584	0.00	09/03/2024 18:29	S24090311.D
Ethylbenzene	100-41-4	<1.46	U	1.46	0.00	09/03/2024 18:29	S24090311.D
p & m-Xylene	179601-23-1	<1.41	U	1.41	0.00	09/03/2024 18:29	S24090311.D
o-Xylene	95-47-6	<1.41	U	1.41	0.00	09/03/2024 18:29	S24090311.D
1,2,3-Trichloropropane	96-18-4	<0.661	U	0.661	0.00	09/03/2024 18:29	S24090311.D
Isopropylbenzene	98-82-8	<1.49	U	1.49	0.00	09/03/2024 18:29	S24090311.D
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	1.49	0.00	09/03/2024 18:29	S24090311.D
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	1.49	0.00	09/03/2024 18:29	S24090311.D
1,3-Dichlorobenzene	541-73-1	<0.661	U	0.661	0.00	09/03/2024 18:29	S24090311.D
1,4-Dichlorobenzene	106-46-7	<0.661	U	0.661	0.00	09/03/2024 18:29	S24090311.D
1,2-Dichlorobenzene	95-50-1	<0.661	U	0.661	0.00	09/03/2024 18:29	S24090311.D
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	1.27	0.00	09/03/2024 18:29	S24090311.D
Naphthalene	91-20-3	<0.620	U	0.620	0.00	09/03/2024 18:29	S24090311.D
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	1.27	0.00	09/03/2024 18:29	S24090311.D
2-Methylnaphthalene	91-57-6	<0.653	U	0.653	0.00	09/03/2024 18:29	S24090311.D
≠ Total Aliphatics C5-C8		<6.53		6.53	0.00	09/03/2024 18:29	
≠ Total Aliphatics C9-C12 (ug/m3)		<3.10		3.10	0.00	09/03/2024 18:29	
≠ Total Aromatics C9-C10	C9C10AROM	<0.620		0.620	0.00	09/03/2024 18:29	

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*RRT Eval*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*114%*	*70-130*		*0.00*	*09/03/2024 18:29*	*S24090311.D*
Surrogate: Toluene-d8	2037-26-5	*96.4%*	*70-130*		*0.00*	*09/03/2024 18:29*	*S24090311.D*
Surrogate: Bromofluorobenzene	460-00-4	*78.5%*	*70-130*		*0.00*	*09/03/2024 18:29*	*S24090311.D*

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Lab Sample ID: 0007984-06

TWA-PSV-05

Soil Gas

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOQ (µg/m³)	RRT Eval	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.612	U	0.612	0.00	09/03/2024 19:04	S24090312.D
1,1-Dichloroethene	75-35-4	<1.50	U	1.50	0.00	09/03/2024 19:04	S24090312.D
Methylene Chloride	75-09-2	<1.42	U	1.42	0.00	09/03/2024 19:04	S24090312.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	0.557	0.00	09/03/2024 19:04	S24090312.D
trans-1,2-Dichloroethene	156-60-5	<1.13	U	1.13	0.00	09/03/2024 19:04	S24090312.D
Methyl-t-butyl ether	1634-04-4	<2.48	U	2.48	0.00	09/03/2024 19:04	S24090312.D
1,1-Dichloroethane	75-34-3	<0.584	U	0.584	0.00	09/03/2024 19:04	S24090312.D
cis-1,2-Dichloroethene	156-59-2	<0.936	U	0.936	0.00	09/03/2024 19:04	S24090312.D
Chloroform	67-66-3	<1.42	U	1.42	0.00	09/03/2024 19:04	S24090312.D
1,2-Dichloroethane	107-06-2	<0.886	U	0.886	0.00	09/03/2024 19:04	S24090312.D
1,1,1-Trichloroethane	71-55-6	<0.472	U	0.472	0.00	09/03/2024 19:04	S24090312.D
Carbon Tetrachloride	56-23-5	<1.15	U	1.15	0.00	09/03/2024 19:04	S24090312.D
Benzene	71-43-2	<2.34	U	2.34	0.00	09/03/2024 19:04	S24090312.D
Trichloroethene	79-01-6	<1.50	U	1.50	0.00	09/03/2024 19:04	S24090312.D
1,4-Dioxane	123-91-1	<1.21	U	1.21	0.00	09/03/2024 19:04	S24090312.D
1,1,2-Trichloroethane	79-00-5	<1.50	U	1.50	0.00	09/03/2024 19:04	S24090312.D
Toluene	108-88-3	<3.10	U	3.10	0.00	09/03/2024 19:04	S24090312.D
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	1.27	0.00	09/03/2024 19:04	S24090312.D
Tetrachloroethene	127-18-4	<1.21	U	1.21	0.00	09/03/2024 19:04	S24090312.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	1.21	0.00	09/03/2024 19:04	S24090312.D
Chlorobenzene	108-90-7	<0.584	U	0.584	0.00	09/03/2024 19:04	S24090312.D
Ethylbenzene	100-41-4	<1.46	U	1.46	0.00	09/03/2024 19:04	S24090312.D
p & m-Xylene	179601-23-1	<1.41	U	1.41	0.00	09/03/2024 19:04	S24090312.D
o-Xylene	95-47-6	<1.41	U	1.41	0.00	09/03/2024 19:04	S24090312.D
1,2,3-Trichloropropane	96-18-4	<0.661	U	0.661	0.00	09/03/2024 19:04	S24090312.D
Isopropylbenzene	98-82-8	<1.49	U	1.49	0.00	09/03/2024 19:04	S24090312.D
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	1.49	0.00	09/03/2024 19:04	S24090312.D
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	1.49	0.00	09/03/2024 19:04	S24090312.D
1,3-Dichlorobenzene	541-73-1	<0.661	U	0.661	0.00	09/03/2024 19:04	S24090312.D
1,4-Dichlorobenzene	106-46-7	<0.661	U	0.661	0.00	09/03/2024 19:04	S24090312.D
1,2-Dichlorobenzene	95-50-1	<0.661	U	0.661	0.00	09/03/2024 19:04	S24090312.D
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	1.27	0.00	09/03/2024 19:04	S24090312.D
Naphthalene	91-20-3	<0.620	U	0.620	0.00	09/03/2024 19:04	S24090312.D
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	1.27	0.00	09/03/2024 19:04	S24090312.D
2-Methylnaphthalene	91-57-6	<0.653	U	0.653	0.00	09/03/2024 19:04	S24090312.D
∉ Total Aliphatics C5-C8		<6.53		6.53	0.00	09/03/2024 19:04	
∉ Total Aliphatics C9-C12 (ug/m3)		<3.10		3.10	0.00	09/03/2024 19:04	
∉ Total Aromatics C9-C10	C9C10AROM	<0.620		0.620	0.00	09/03/2024 19:04	

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*RRT Eval*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*120%*	*70-130*		*0.00*	*09/03/2024 19:04*	*S24090312.D*
Surrogate: Toluene-d8	2037-26-5	*95.6%*	*70-130*		*0.00*	*09/03/2024 19:04*	*S24090312.D*
Surrogate: Bromofluorobenzene	460-00-4	*83.8%*	*70-130*		*0.00*	*09/03/2024 19:04*	*S24090312.D*

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Lab Sample ID: 0007984-07

TWA-PSV-05-DUP

Soil Gas

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOQ (µg/m³)	RRT Eval	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.612	U	0.612	0.00	09/03/2024 19:38	S24090313.D
1,1-Dichloroethene	75-35-4	<1.50	U	1.50	0.00	09/03/2024 19:38	S24090313.D
Methylene Chloride	75-09-2	<1.42	U	1.42	0.00	09/03/2024 19:38	S24090313.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	0.557	0.00	09/03/2024 19:38	S24090313.D
trans-1,2-Dichloroethene	156-60-5	<1.13	U	1.13	0.00	09/03/2024 19:38	S24090313.D
Methyl-t-butyl ether	1634-04-4	<2.48	U	2.48	0.00	09/03/2024 19:38	S24090313.D
1,1-Dichloroethane	75-34-3	<0.584	U	0.584	0.00	09/03/2024 19:38	S24090313.D
cis-1,2-Dichloroethene	156-59-2	<0.936	U	0.936	0.00	09/03/2024 19:38	S24090313.D
Chloroform	67-66-3	<1.42	U	1.42	0.00	09/03/2024 19:38	S24090313.D
1,2-Dichloroethane	107-06-2	<0.886	U	0.886	0.00	09/03/2024 19:38	S24090313.D
1,1,1-Trichloroethane	71-55-6	<0.472	U	0.472	0.00	09/03/2024 19:38	S24090313.D
Carbon Tetrachloride	56-23-5	<1.15	U	1.15	0.00	09/03/2024 19:38	S24090313.D
Benzene	71-43-2	<2.34	U	2.34	0.00	09/03/2024 19:38	S24090313.D
Trichloroethene	79-01-6	<1.50	U	1.50	0.00	09/03/2024 19:38	S24090313.D
1,4-Dioxane	123-91-1	<1.21	U	1.21	0.00	09/03/2024 19:38	S24090313.D
1,1,2-Trichloroethane	79-00-5	<1.50	U	1.50	0.00	09/03/2024 19:38	S24090313.D
Toluene	108-88-3	<3.10	U	3.10	0.00	09/03/2024 19:38	S24090313.D
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	1.27	0.00	09/03/2024 19:38	S24090313.D
Tetrachloroethene	127-18-4	<1.21	U	1.21	0.00	09/03/2024 19:38	S24090313.D
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	1.21	0.00	09/03/2024 19:38	S24090313.D
Chlorobenzene	108-90-7	<0.584	U	0.584	0.00	09/03/2024 19:38	S24090313.D
Ethylbenzene	100-41-4	<1.46	U	1.46	0.00	09/03/2024 19:38	S24090313.D
p & m-Xylene	179601-23-1	<1.41	U	1.41	0.00	09/03/2024 19:38	S24090313.D
o-Xylene	95-47-6	<1.41	U	1.41	0.00	09/03/2024 19:38	S24090313.D
1,2,3-Trichloropropane	96-18-4	<0.661	U	0.661	0.00	09/03/2024 19:38	S24090313.D
Isopropylbenzene	98-82-8	<1.49	U	1.49	0.00	09/03/2024 19:38	S24090313.D
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	1.49	0.00	09/03/2024 19:38	S24090313.D
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	1.49	0.00	09/03/2024 19:38	S24090313.D
1,3-Dichlorobenzene	541-73-1	<0.661	U	0.661	0.00	09/03/2024 19:38	S24090313.D
1,4-Dichlorobenzene	106-46-7	<0.661	U	0.661	0.00	09/03/2024 19:38	S24090313.D
1,2-Dichlorobenzene	95-50-1	<0.661	U	0.661	0.00	09/03/2024 19:38	S24090313.D
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	1.27	0.00	09/03/2024 19:38	S24090313.D
Naphthalene	91-20-3	<0.620	U	0.620	0.00	09/03/2024 19:38	S24090313.D
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	1.27	0.00	09/03/2024 19:38	S24090313.D
2-Methylnaphthalene	91-57-6	<0.653	U	0.653	0.00	09/03/2024 19:38	S24090313.D
∉ Total Aliphatics C5-C8		<6.53		6.53	0.00	09/03/2024 19:38	
∉ Total Aliphatics C9-C12 (ug/m3)		<3.10		3.10	0.00	09/03/2024 19:38	
∉ Total Aromatics C9-C10	C9C10AROM	<0.620		0.620	0.00	09/03/2024 19:38	

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*RRT Eval*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*124%*	*70-130*		*0.00*	*09/03/2024 19:38*	*S24090313.D*
Surrogate: Toluene-d8	2037-26-5	*93.4%*	*70-130*		*0.00*	*09/03/2024 19:38*	*S24090313.D*
Surrogate: Bromofluorobenzene	460-00-4	*82.1%*	*70-130*		*0.00*	*09/03/2024 19:38*	*S24090313.D*

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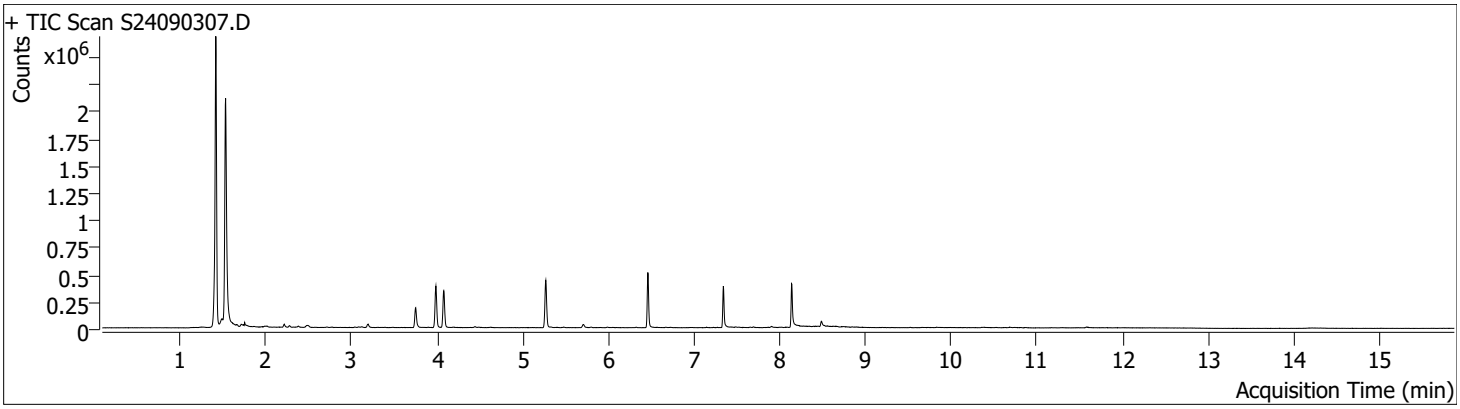
Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

TIC Summary Report

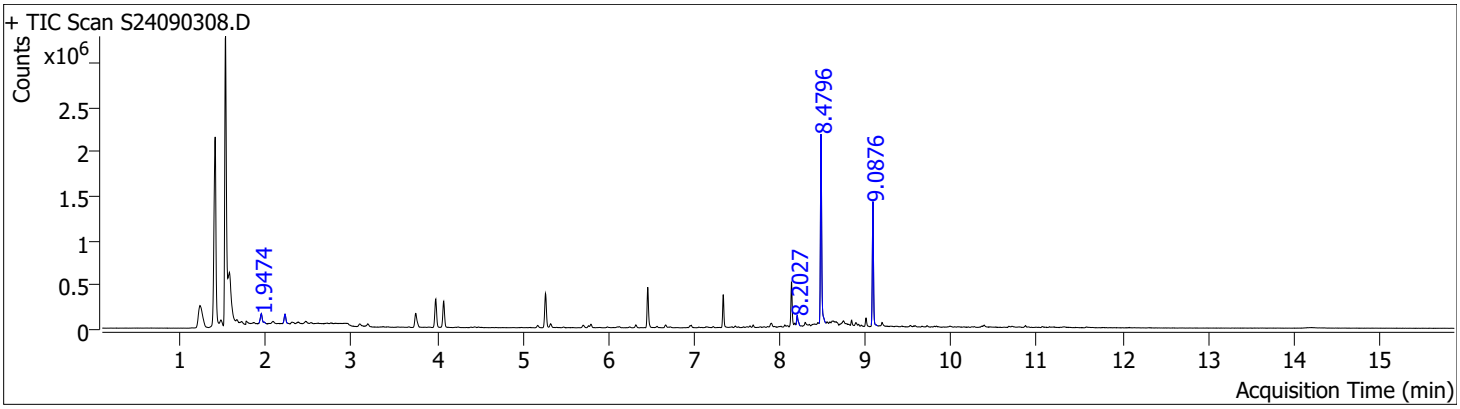
BEACON TICs Analysis Report

Batch Path	F:\gcms\1\data\7984 TICs		
Analysis File Name	7984 TICs.uaf		
Analyst Name	Kenny		
Analysis Time	9/5/2024 10:42:49 AM		
Data File Name	S24090307.D	**Data Path Name**	F:\gcms\1\data\7984 TICs
Sample Name	0007984-01	**Client Sample**	Trip 1
Acq Method File	VOA	**Acq Method Path**	D:\MassHunter\GCMS\1\methods\
Acq Time	9/3/2024 4:09:30 PM	**Operator**	KAI
Instrument Name	Chemstation3	**Dilution**	1



BEACON TICs Analysis Report

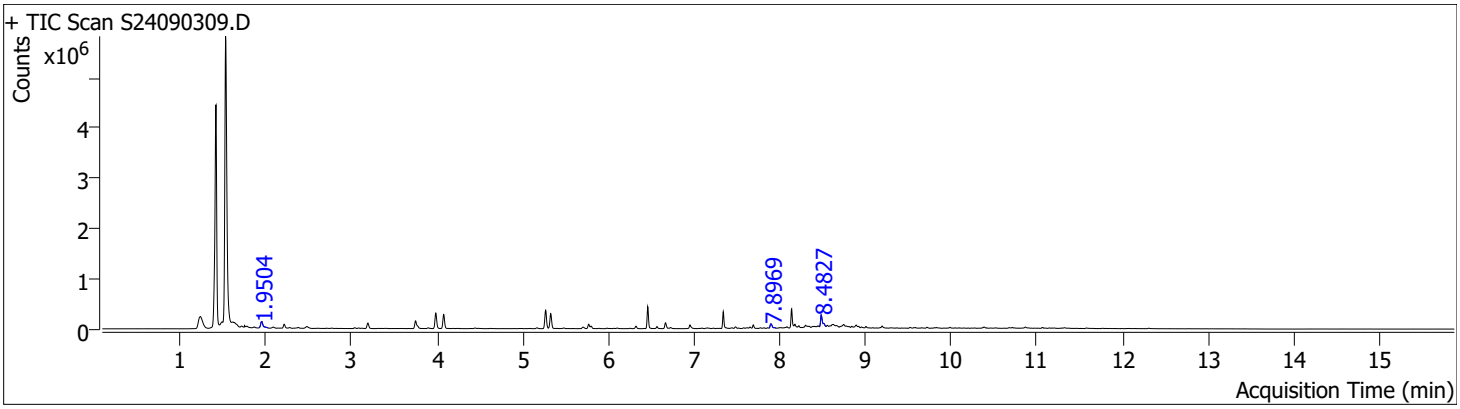
Batch Path	F:\gcms\1\data\7984 TICs		
Analysis File Name	7984 TICs.uaf		
Analyst Name	Kenny		
Analysis Time	9/5/2024 10:42:49 AM		
Data File Name	S24090308.D	**Data Path Name**	F:\gcms\1\data\7984 TICs
Sample Name	0007984-02	**Client Sample**	TWA-PSV-01
Acq Method File	VOA	**Acq Method Path**	D:\MassHunter\GCMS\1\methods\
Acq Time	9/3/2024 4:44:24 PM	**Operator**	KAI
Instrument Name	Chemstation3	**Dilution**	1



RT	Compound Name	CAS#	Formula	Area	Match Score	ng
1.9474	Trichloromonofluoromethane	75-69-4	CCl3F	190570	87.5	42
2.2243	Acetone	67-64-1	C3H6O	145804	87.3	32
8.2027	Benzonitrile	100-47-0	C7H5N	154288	88.8	34
8.4796	4-Cyanocyclohexene	100-45-8	C7H9N	2222555	97.8	487
9.0876	Thujone	546-80-5	C10H16O	1331467	93.9	292

BEACON TICs Analysis Report

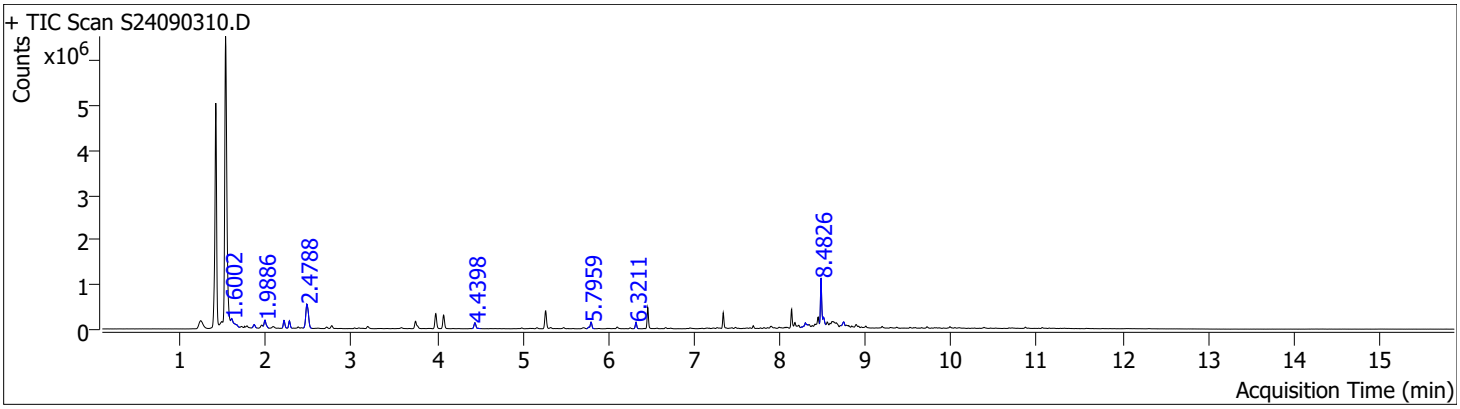
Batch Path	F:\gcms\1\data\7984 TICs		
Analysis File Name	7984 TICs.uaf		
Analyst Name	Kenny		
Analysis Time	9/5/2024 10:42:49 AM		
Data File Name	S24090309.D	**Data Path Name**	F:\gcms\1\data\7984 TICs
Sample Name	0007984-03	**Client Sample**	TWA-PSV-02
Acq Method File	VOA	**Acq Method Path**	D:\MassHunter\GCMS\1\methods\
Acq Time	9/3/2024 5:18:52 PM	**Operator**	KAI
Instrument Name	Chemstation3	**Dilution**	1



RT	Compound Name	CAS#	Formula	Area	Match Score	ng
1.9504	Trichloromonofluoromethane	75-69-4	CCl3F	259652	98.0	59
7.8969	Benzaldehyde	100-52-7	C7H6O	148617	82.2	34
8.4827	4-Cyanocyclohexene	100-45-8	C7H9N	380281	85.0	86

BEACON TICs Analysis Report

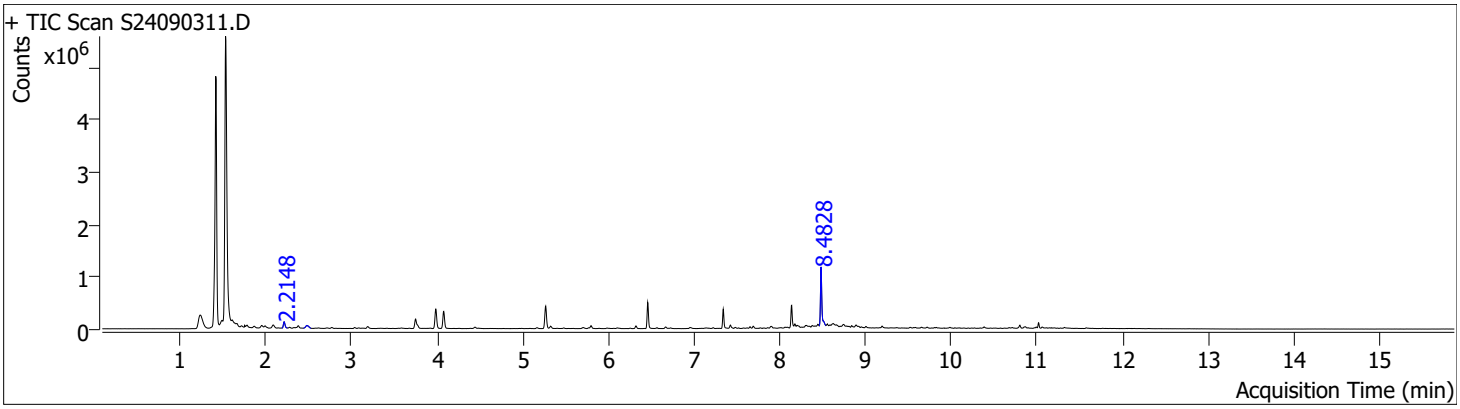
Batch Path	F:\gcms\1\data\7984 TICs		
Analysis File Name	7984 TICs.uaf		
Analyst Name	Kenny		
Analysis Time	9/5/2024 10:42:49 AM		
Data File Name	S24090310.D	**Data Path Name**	F:\gcms\1\data\7984 TICs
Sample Name	0007984-04	**Client Sample**	TWA-PSV-03
Acq Method File	VOA	**Acq Method Path**	D:\MassHunter\GCMS\1\methods\
Acq Time	9/3/2024 5:54:45 PM	**Operator**	KAI
Instrument Name	Chemstation3	**Dilution**	1



RT	Compound Name	CAS#	Formula	Area	Match Score	ng
1.6002	1-Propene, 2-methyl-	115-11-7	C4H8	623778	88.8	129
1.8644	Butane, 2-methyl-	78-78-4	C5H12	122531	96.9	25
1.9886	Pentane	109-66-0	C5H12	317362	99.1	66
2.2114	Acetone	67-64-1	C3H6O	225412	93.4	47
2.2751	Isopropyl Alcohol	67-63-0	C3H8O	204127	94.7	42
2.4788	Pentane, 2-methyl-	107-83-5	C6H14	1181505	94.4	245
4.4398	Cyclohexane, methyl-	108-87-2	C7H14	214490	93.1	45
5.7959	Hexane, 2,3,4-trimethyl-	921-47-1	C9H20	246191	94.1	51
6.3211	Octane, 4-methyl-	2216-34-4	C9H20	162053	93.3	34
8.2980	1-Octyn-3-ol, 4-ethyl-	5877-42-9	C10H18O	334936	85.4	70
8.4826	4-Cyanocyclohexene	100-45-8	C7H9N	1251014	92.2	260
8.5113	Nonane, 4,5-dimethyl-	17302-23-7	C11H24	188327	83.6	39
8.7469	1-Heptanol, 2-propyl-	10042-59-8	C10H22O	136456	88.6	28

BEACON TICs Analysis Report

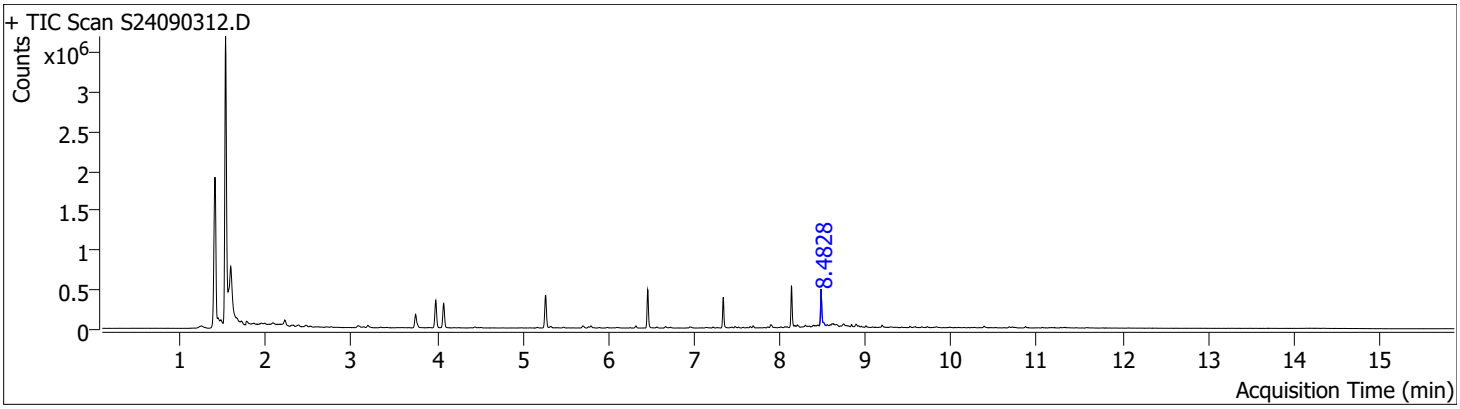
Batch Path	F:\gcms\1\data\7984 TICs		
Analysis File Name	7984 TICs.uaf		
Analyst Name	Kenny		
Analysis Time	9/5/2024 10:42:49 AM		
Data File Name	S24090311.D	**Data Path Name**	F:\gcms\1\data\7984 TICs
Sample Name	0007984-05	**Client Sample**	TWA-PSV-04
Acq Method File	VOA	**Acq Method Path**	D:\MassHunter\GCMS\1\methods\
Acq Time	9/3/2024 6:29:02 PM	**Operator**	KAI
Instrument Name	Chemstation3	**Dilution**	1



RT	Compound Name	CAS#	Formula	Area	Match Score	ng
2.2148	Acetone	67-64-1	C3H6O	168689	89.4	32
2.4790	Pentane, 2-methyl-	107-83-5	C6H14	136149	92.1	26
8.4828	4-Cyanocyclohexene	100-45-8	C7H9N	1410388	95.9	266

BEACON TICs Analysis Report

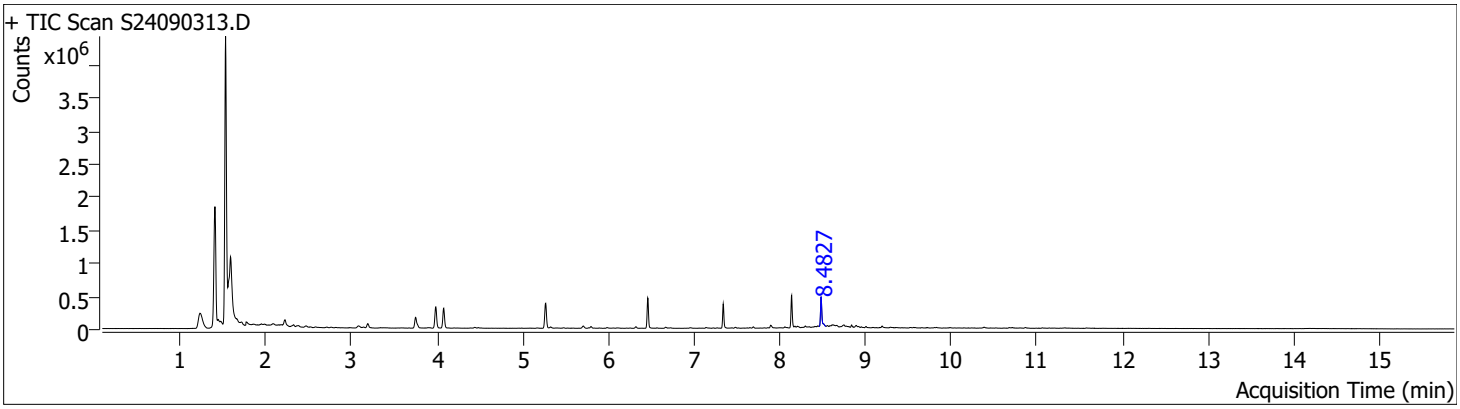
Batch Path	F:\gcms\1\data\7984 TICs		
Analysis File Name	7984 TICs.uaf		
Analyst Name	Kenny		
Analysis Time	9/5/2024 10:42:49 AM		
Data File Name	S24090312.D	**Data Path Name**	F:\gcms\1\data\7984 TICs
Sample Name	0007984-06	**Client Sample**	TWA-PSV-05
Acq Method File	VOA	**Acq Method Path**	D:\MassHunter\GCMS\1\methods\
Acq Time	9/3/2024 7:04:23 PM	**Operator**	KAI
Instrument Name	Chemstation3	**Dilution**	1



RT	Compound Name	CAS#	Formula	Area	Match Score	ng
8.4828	4-Cyanocyclohexene	100-45-8	C7H9N	532212	94.2	108

BEACON TICs Analysis Report

Batch Path	F:\gcms\1\data\7984 TICs		
Analysis File Name	7984 TICs.uaf		
Analyst Name	Kenny		
Analysis Time	9/5/2024 10:42:49 AM		
Data File Name	S24090313.D	**Data Path Name**	F:\gcms\1\data\7984 TICs
Sample Name	0007984-07	**Client Sample**	TWA-PSV-05-DUP
Acq Method File	VOA	**Acq Method Path**	D:\MassHunter\GCMS\1\methods\
Acq Time	9/3/2024 7:38:32 PM	**Operator**	KAI
Instrument Name	Chemstation3	**Dilution**	1



RT	Compound Name	CAS#	Formula	Area	Match Score	ng
8.4827	4-Cyanocyclohexene	100-45-8	C7H9N	553987	94.7	119

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

QC Information/Summary

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24G062 - Instrument: S System - File ID: S24070924.D

B24G062-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	59.0	10	ng	50.0		118	70-130			
1,1-Dichloroethene	50.1	10	ng	50.0		100	70-130			
Methylene Chloride	54.2	10	ng	50.0		108	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	54.4	10	ng	50.0		109	70-130			
trans-1,2-Dichloroethene	53.1	10	ng	50.0		106	70-130			
Methyl-t-butyl ether	48.3	25	ng	50.0		96.6	70-130			
1,1-Dichloroethane	53.6	10	ng	50.0		107	70-130			
cis-1,2-Dichloroethene	51.6	10	ng	50.0		103	70-130			
Chloroform	51.3	10	ng	50.0		103	70-130			
1,2-Dichloroethane	52.3	10	ng	50.0		105	70-130			
1,1,1-Trichloroethane	52.0	10	ng	50.0		104	70-130			
Carbon Tetrachloride	50.8	10	ng	50.0		102	70-130			
Benzene	51.0	25	ng	50.0		102	70-130			
Trichloroethene	49.2	10	ng	50.0		98.4	70-130			
1,4-Dioxane	42.1	10	ng	50.0		84.2	70-130			
1,1,2-Trichloroethane	46.1	10	ng	50.0		92.3	70-130			
Toluene	53.5	25	ng	50.0		107	70-130			
1,2-Dibromoethane (EDB)	52.4	10	ng	50.0		105	70-130			
Tetrachloroethene	59.1	10	ng	50.0		118	70-130			
1,1,1,2-Tetrachloroethane	47.7	10	ng	50.0		95.4	70-130			
Chlorobenzene	49.2	10	ng	50.0		98.4	70-130			
Ethylbenzene	47.7	25	ng	50.0		95.3	70-130			
p & m-Xylene	48.0	25	ng	50.0		96.0	70-130			
o-Xylene	49.5	25	ng	50.0		98.9	70-130			
1,2,3-Trichloropropane	48.6	10	ng	50.0		97.2	70-130			
Isopropylbenzene	48.0	25	ng	50.0		95.9	70-130			
1,3,5-Trimethylbenzene	56.7	25	ng	50.0		113	70-130			
1,2,4-Trimethylbenzene	57.3	25	ng	50.0		115	70-130			
1,3-Dichlorobenzene	57.6	10	ng	50.0		115	70-130			
1,4-Dichlorobenzene	54.3	10	ng	50.0		109	70-130			
1,2-Dichlorobenzene	55.8	10	ng	50.0		112	70-130			
1,2,4-Trichlorobenzene	55.4	10	ng	50.0		111	70-130			
Naphthalene	54.4	10	ng	50.0		109	70-130			
1,2,3-Trichlorobenzene	52.9	10	ng	50.0		106	70-130			
2-Methylnaphthalene	47.5	10	ng	50.0		95.0	70-130			
Surrogate: 1,2-DCA-d4	*49.2*		*ng*	50.0		*98.4*	*70-130*			
Surrogate: Toluene-d8	*53.3*		*ng*	50.0		*107*	*70-130*			
Surrogate: Bromofluorobenzene	*43.5*		*ng*	50.0		*87.1*	*70-130*			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24G062 - Instrument: S System - File ID: S24070925.D

B24G062-ICB1 (Lab Blank/Initial Calibration Blank)

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	ng							U
1,1-Dichloroethene	<5	10	ng							U
Methylene Chloride	<5	10	ng							U
1,1,2-Trichlorotrifluoroethane (Fr.113)	<5	10	ng							U
trans-1,2-Dichloroethene	<5	10	ng							U
Methyl-t-butyl ether	<10	25	ng							U
1,1-Dichloroethane	<5	10	ng							U
cis-1,2-Dichloroethene	<5	10	ng							U
Chloroform	<5	10	ng							U
1,2-Dichloroethane	<5	10	ng							U
1,1,1-Trichloroethane	<5	10	ng							U
Carbon Tetrachloride	<5	10	ng							U
Benzene	<10	25	ng							U
Trichloroethene	<5	10	ng							U
1,4-Dioxane	<5	10	ng							U
1,1,2-Trichloroethane	<5	10	ng							U
Toluene	<10	25	ng							U
1,2-Dibromoethane (EDB)	<5	10	ng							U
Tetrachloroethene	<5	10	ng							U
1,1,1,2-Tetrachloroethane	<5	10	ng							U
Chlorobenzene	<5	10	ng							U
Ethylbenzene	<10	25	ng							U
p & m-Xylene	<10	25	ng							U
o-Xylene	<10	25	ng							U
1,2,3-Trichloropropane	<5	10	ng							U
Isopropylbenzene	<10	25	ng							U
1,3,5-Trimethylbenzene	<10	25	ng							U
1,2,4-Trimethylbenzene	<10	25	ng							U
1,3-Dichlorobenzene	<5	10	ng							U
1,4-Dichlorobenzene	<5	10	ng							U
1,2-Dichlorobenzene	<5	10	ng							U
1,2,4-Trichlorobenzene	<5	10	ng							U
Naphthalene	<5	10	ng							U
1,2,3-Trichlorobenzene	<5	10	ng							U
2-Methylnaphthalene	<5	10	ng							U
Surrogate: 1,2-DCA-d4	*99.3*		*ng*	100		*99.3*	*70-130*			
Surrogate: Toluene-d8	*102*		*ng*	100		*102*	*70-130*			
Surrogate: Bromofluorobenzene	*77.7*		*ng*	100		*77.7*	*70-130*			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24I002 - Batch: 24I0002 - Instrument: S System - File ID: S24090302.D

24I0002-BLK1 (Lab Blank)

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.612	0.612	µg/m³							U
1,1-Dichloroethene	<1.50	1.50	µg/m³							U
Methylene Chloride	<1.42	1.42	µg/m³							U
1,1,2-Trichlorotrifluoroethane (Fr.113)	<0.557	0.557	µg/m³							U
trans-1,2-Dichloroethene	<1.13	1.13	µg/m³							U
Methyl-t-butyl ether	<2.48	2.48	µg/m³							U
1,1-Dichloroethane	<0.584	0.584	µg/m³							U
cis-1,2-Dichloroethene	<0.936	0.936	µg/m³							U
Chloroform	<1.42	1.42	µg/m³							U
1,2-Dichloroethane	<0.886	0.886	µg/m³							U
1,1,1-Trichloroethane	<0.472	0.472	µg/m³							U
Carbon Tetrachloride	<1.15	1.15	µg/m³							U
Benzene	<2.34	2.34	µg/m³							U
Trichloroethene	<1.50	1.50	µg/m³							U
1,4-Dioxane	<1.21	1.21	µg/m³							U
1,1,2-Trichloroethane	<1.50	1.50	µg/m³							U
Toluene	<3.10	3.10	µg/m³							U
1,2-Dibromoethane (EDB)	<1.27	1.27	µg/m³							U
Tetrachloroethene	<1.21	1.21	µg/m³							U
1,1,1,2-Tetrachloroethane	<1.21	1.21	µg/m³							U
Chlorobenzene	<0.584	0.584	µg/m³							U
Ethylbenzene	<1.46	1.46	µg/m³							U
p & m-Xylene	<1.41	1.41	µg/m³							U
o-Xylene	<1.41	1.41	µg/m³							U
1,2,3-Trichloropropane	<0.661	0.661	µg/m³							U
Isopropylbenzene	<1.49	1.49	µg/m³							U
1,3,5-Trimethylbenzene	<1.49	1.49	µg/m³							U
1,2,4-Trimethylbenzene	<1.49	1.49	µg/m³							U
1,3-Dichlorobenzene	<0.661	0.661	µg/m³							U
1,4-Dichlorobenzene	<0.661	0.661	µg/m³							U
1,2-Dichlorobenzene	<0.661	0.661	µg/m³							U
1,2,4-Trichlorobenzene	<1.27	1.27	µg/m³							U
Naphthalene	<0.620	0.620	µg/m³							U
1,2,3-Trichlorobenzene	<1.27	1.27	µg/m³							U
2-Methylnaphthalene	<0.653	0.653	µg/m³							U
Surrogate: 1,2-DCA-d4	*115*		*ng*	100		*115*	*70-130*			
Surrogate: Toluene-d8	*106*		*ng*	100		*106*	*70-130*			
Surrogate: Bromofluorobenzene	*75.5*		*ng*	100		*75.5*	*70-130*			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24I002 - Batch: 24I0002 - Instrument: S System - File ID: S24090305.D

24I0002-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	58.7	10	ng	50.0		117	70-130			
1,1-Dichloroethene	51.2	10	ng	50.0		102	70-130			
Methylene Chloride	53.8	10	ng	50.0		108	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	55.6	10	ng	50.0		111	70-130			
trans-1,2-Dichloroethene	54.8	10	ng	50.0		110	70-130			
Methyl-t-butyl ether	50.6	25	ng	50.0		101	70-130			
1,1-Dichloroethane	56.0	10	ng	50.0		112	70-130			
cis-1,2-Dichloroethene	49.7	10	ng	50.0		99.3	70-130			
Chloroform	56.6	10	ng	50.0		113	70-130			
1,2-Dichloroethane	57.8	10	ng	50.0		116	70-130			
1,1,1-Trichloroethane	55.5	10	ng	50.0		111	70-130			
Carbon Tetrachloride	57.5	10	ng	50.0		115	70-130			
Benzene	51.1	25	ng	50.0		102	70-130			
Trichloroethene	49.0	10	ng	50.0		97.9	70-130			
1,4-Dioxane	46.0	10	ng	50.0		92.0	70-130			
1,1,2-Trichloroethane	53.8	10	ng	50.0		108	70-130			
Toluene	48.1	25	ng	50.0		96.1	70-130			
1,2-Dibromoethane (EDB)	56.6	10	ng	50.0		113	70-130			
Tetrachloroethene	49.7	10	ng	50.0		99.5	70-130			
1,1,1,2-Tetrachloroethane	56.7	10	ng	50.0		113	70-130			
Chlorobenzene	49.3	10	ng	50.0		98.6	70-130			
Ethylbenzene	46.3	25	ng	50.0		92.5	70-130			
p & m-Xylene	44.9	25	ng	50.0		89.8	70-130			
o-Xylene	46.6	25	ng	50.0		93.2	70-130			
1,2,3-Trichloropropane	55.2	10	ng	50.0		110	70-130			
Isopropylbenzene	47.1	25	ng	50.0		94.3	70-130			
1,3,5-Trimethylbenzene	46.8	25	ng	50.0		93.6	70-130			
1,2,4-Trimethylbenzene	48.9	25	ng	50.0		97.8	70-130			
1,3-Dichlorobenzene	50.9	10	ng	50.0		102	70-130			
1,4-Dichlorobenzene	47.1	10	ng	50.0		94.1	70-130			
1,2-Dichlorobenzene	49.9	10	ng	50.0		99.7	70-130			
1,2,4-Trichlorobenzene	46.2	10	ng	50.0		92.4	70-130			
Naphthalene	46.0	10	ng	50.0		91.9	70-130			
1,2,3-Trichlorobenzene	44.6	10	ng	50.0		89.1	70-130			
2-Methylnaphthalene	42.5	10	ng	50.0		85.1	70-130			
Surrogate: 1,2-DCA-d4	*56.2*		*ng*	50.0		*112*	*70-130*			
Surrogate: Toluene-d8	*50.1*		*ng*	50.0		*100*	*70-130*			
Surrogate: Bromofluorobenzene	*43.1*		*ng*	50.0		*86.1*	*70-130*			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24I002 - Instrument: S System - File ID: S24090306.D

B24I002-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.2	10	ng	50.0		96.5	70-130			
1,1-Dichloroethene	48.9	10	ng	50.0		97.8	70-130			
Methylene Chloride	53.7	10	ng	50.0		107	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	54.1	10	ng	50.0		108	70-130			
trans-1,2-Dichloroethene	55.2	10	ng	50.0		110	70-130			
Methyl-t-butyl ether	48.6	25	ng	50.0		97.2	70-130			
1,1-Dichloroethane	56.8	10	ng	50.0		114	70-130			
cis-1,2-Dichloroethene	50.6	10	ng	50.0		101	70-130			
Chloroform	57.8	10	ng	50.0		116	70-130			
1,2-Dichloroethane	59.0	10	ng	50.0		118	70-130			
1,1,1-Trichloroethane	55.3	10	ng	50.0		111	70-130			
Carbon Tetrachloride	58.4	10	ng	50.0		117	70-130			
Benzene	52.2	25	ng	50.0		104	70-130			
Trichloroethene	50.3	10	ng	50.0		101	70-130			
1,4-Dioxane	43.2	10	ng	50.0		86.4	70-130			
1,1,2-Trichloroethane	54.8	10	ng	50.0		110	70-130			
Toluene	50.5	25	ng	50.0		101	70-130			
1,2-Dibromoethane (EDB)	58.5	10	ng	50.0		117	70-130			
Tetrachloroethene	52.2	10	ng	50.0		104	70-130			
1,1,1,2-Tetrachloroethane	57.6	10	ng	50.0		115	70-130			
Chlorobenzene	49.9	10	ng	50.0		99.7	70-130			
Ethylbenzene	47.6	25	ng	50.0		95.2	70-130			
p & m-Xylene	45.6	25	ng	50.0		91.2	70-130			
o-Xylene	47.2	25	ng	50.0		94.4	70-130			
1,2,3-Trichloropropane	54.0	10	ng	50.0		108	70-130			
Isopropylbenzene	47.5	25	ng	50.0		95.0	70-130			
1,3,5-Trimethylbenzene	50.1	25	ng	50.0		100	70-130			
1,2,4-Trimethylbenzene	51.3	25	ng	50.0		103	70-130			
1,3-Dichlorobenzene	52.1	10	ng	50.0		104	70-130			
1,4-Dichlorobenzene	48.9	10	ng	50.0		97.8	70-130			
1,2-Dichlorobenzene	50.9	10	ng	50.0		102	70-130			
1,2,4-Trichlorobenzene	46.9	10	ng	50.0		93.8	70-130			
Naphthalene	46.9	10	ng	50.0		93.7	70-130			
1,2,3-Trichlorobenzene	45.5	10	ng	50.0		91.0	70-130			
2-Methylnaphthalene	41.9	10	ng	50.0		83.8	70-130			
Surrogate: 1,2-DCA-d4	*54.9*		*ng*	50.0		*110*	*70-130*			
Surrogate: Toluene-d8	*49.6*		*ng*	50.0		*99.3*	*70-130*			
Surrogate: Bromofluorobenzene	*40.2*		*ng*	50.0		*80.4*	*70-130*			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24I002 - Instrument: S System - File ID: S24090315.D

B24I002-CCB1 (Lab Blank)

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	ng							U
1,1-Dichloroethene	<5	10	ng							U
Methylene Chloride	<5	10	ng							U
1,1,2-Trichlorotrifluoroethane (Fr.113)	<5	10	ng							U
trans-1,2-Dichloroethene	<5	10	ng							U
Methyl-t-butyl ether	<10	25	ng							U
1,1-Dichloroethane	<5	10	ng							U
cis-1,2-Dichloroethene	<5	10	ng							U
Chloroform	<5	10	ng							U
1,2-Dichloroethane	<5	10	ng							U
1,1,1-Trichloroethane	<5	10	ng							U
Carbon Tetrachloride	<5	10	ng							U
Benzene	<10	25	ng							U
Trichloroethene	<5	10	ng							U
1,4-Dioxane	<5	10	ng							U
1,1,2-Trichloroethane	<5	10	ng							U
Toluene	<10	25	ng							U
1,2-Dibromoethane (EDB)	<5	10	ng							U
Tetrachloroethene	<5	10	ng							U
1,1,1,2-Tetrachloroethane	<5	10	ng							U
Chlorobenzene	<5	10	ng							U
Ethylbenzene	<10	25	ng							U
p & m-Xylene	<10	25	ng							U
o-Xylene	<10	25	ng							U
1,2,3-Trichloropropane	<5	10	ng							U
Isopropylbenzene	<10	25	ng							U
1,3,5-Trimethylbenzene	<10	25	ng							U
1,2,4-Trimethylbenzene	<10	25	ng							U
1,3-Dichlorobenzene	<5	10	ng							U
1,4-Dichlorobenzene	<5	10	ng							U
1,2-Dichlorobenzene	<5	10	ng							U
1,2,4-Trichlorobenzene	<5	10	ng							U
Naphthalene	<5	10	ng							U
1,2,3-Trichlorobenzene	<5	10	ng							U
2-Methylnaphthalene	<5	10	ng							U
Surrogate: 1,2-DCA-d4	*121*		*ng*	100		*121*	*70-130*			
Surrogate: Toluene-d8	*105*		*ng*	100		*105*	*70-130*			
Surrogate: Bromofluorobenzene	*68.1*		*ng*	100		*68.1+*	*70-130*			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics in Air by EPA TO-17 Using Beacon Sampler - Quality Control Summary

Sequence: B24I002 - Instrument: S System - File ID: S24090316.D

B24I002-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.8	10	ng	50.0		97.7	70-130			
1,1-Dichloroethene	48.0	10	ng	50.0		95.9	70-130			
Methylene Chloride	54.6	10	ng	50.0		109	70-130			
1,1,2-Trichlorotrifluoroethane (Fr.113)	56.5	10	ng	50.0		113	70-130			
trans-1,2-Dichloroethene	56.2	10	ng	50.0		112	70-130			
Methyl-t-butyl ether	49.9	25	ng	50.0		99.8	70-130			
1,1-Dichloroethane	57.4	10	ng	50.0		115	70-130			
cis-1,2-Dichloroethene	50.3	10	ng	50.0		101	70-130			
Chloroform	58.6	10	ng	50.0		117	70-130			
1,2-Dichloroethane	59.9	10	ng	50.0		120	70-130			
1,1,1-Trichloroethane	54.8	10	ng	50.0		110	70-130			
Carbon Tetrachloride	56.4	10	ng	50.0		113	70-130			
Benzene	50.7	25	ng	50.0		101	70-130			
Trichloroethene	48.2	10	ng	50.0		96.4	70-130			
1,4-Dioxane	44.5	10	ng	50.0		88.9	70-130			
1,1,2-Trichloroethane	55.1	10	ng	50.0		110	70-130			
Toluene	48.1	25	ng	50.0		96.1	70-130			
1,2-Dibromoethane (EDB)	56.8	10	ng	50.0		114	70-130			
Tetrachloroethene	50.7	10	ng	50.0		101	70-130			
1,1,1,2-Tetrachloroethane	56.3	10	ng	50.0		113	70-130			
Chlorobenzene	48.9	10	ng	50.0		97.8	70-130			
Ethylbenzene	43.4	25	ng	50.0		86.8	70-130			
p & m-Xylene	42.7	25	ng	50.0		85.3	70-130			
o-Xylene	44.2	25	ng	50.0		88.5	70-130			
1,2,3-Trichloropropane	58.3	10	ng	50.0		117	70-130			
Isopropylbenzene	44.0	25	ng	50.0		88.1	70-130			
1,3,5-Trimethylbenzene	44.2	25	ng	50.0		88.4	70-130			
1,2,4-Trimethylbenzene	45.5	25	ng	50.0		90.9	70-130			
1,3-Dichlorobenzene	51.6	10	ng	50.0		103	70-130			
1,4-Dichlorobenzene	48.3	10	ng	50.0		96.6	70-130			
1,2-Dichlorobenzene	48.9	10	ng	50.0		97.7	70-130			
1,2,4-Trichlorobenzene	44.0	10	ng	50.0		87.9	70-130			
Naphthalene	40.8	10	ng	50.0		81.7	70-130			
1,2,3-Trichlorobenzene	41.8	10	ng	50.0		83.7	70-130			
2-Methylnaphthalene	36.0	10	ng	50.0		72.0	70-130			
Surrogate: 1,2-DCA-d4	*59.2*		*ng*	50.0		*118*	*70-130*			
Surrogate: Toluene-d8	*50.5*		*ng*	50.0		*101*	*70-130*			
Surrogate: Bromofluorobenzene	*40.2*		*ng*	50.0		*80.5*	*70-130*			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

TO-17 (Passive) - LCS/LCSD RPD Quality Control Summary

LCS: 24I0002-BS1 File ID: S24090305.D Analyzed: 9/3/24 15:39

LCSD: B24I002-ICV1 File ID: S24090306.D Analyzed: 9/3/24 15:10

Analyte	CAS#	LCS Result (ng)	%REC	Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	58.67	117.34		50	48.24	96.50	70-130	19.51	30	
1,1-Dichloroethene	75-35-4	51.15	102.3		50	48.88	97.80	70-130	4.54	30	
Methylene Chloride	75-09-2	53.76	107.52		50	53.66	107.00	70-130	0.19	30	
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	55.58	111.16		50	54.07	108.00	70-130	2.75	30	
trans-1,2-Dichloroethene	156-60-5	54.76	109.52		50	55.17	110.00	70-130	0.75	30	
Methyl-t-butyl ether	1634-04-4	50.64	101.28		50	48.62	97.20	70-130	4.07	30	
1,1-Dichloroethane	75-34-3	55.98	111.96		50	56.79	114.00	70-130	1.44	30	
cis-1,2-Dichloroethene	156-59-2	49.67	99.34		50	50.64	101.00	70-130	1.93	30	
Chloroform	67-66-3	56.59	113.18		50	57.84	116.00	70-130	2.18	30	
1,2-Dichloroethane	107-06-2	57.75	115.5		50	59.02	118.00	70-130	2.18	30	
1,1,1-Trichloroethane	71-55-6	55.46	110.92		50	55.3	111.00	70-130	0.29	30	
Carbon Tetrachloride	56-23-5	57.46	114.92		50	58.35	117.00	70-130	1.54	30	
Benzene	71-43-2	51.13	102.26		50	52.18	104.00	70-130	2.03	30	
Trichloroethene	79-01-6	48.96	97.92		50	50.27	101.00	70-130	2.64	30	
1,4-Dioxane	123-91-1	45.99	91.98		50	43.2	86.40	70-130	6.26	30	
1,1,2-Trichloroethane	79-00-5	53.78	107.56		50	54.82	110.00	70-130	1.92	30	
Toluene	108-88-3	48.05	96.1		50	50.48	101.00	70-130	4.93	30	
1,2-Dibromoethane (EDB)	106-93-4	56.58	113.16		50	58.53	117.00	70-130	3.39	30	
Tetrachloroethene	127-18-4	49.74	99.48		50	52.16	104.00	70-130	4.75	30	
1,1,1,2-Tetrachloroethane	630-20-6	56.71	113.42		50	57.56	115.00	70-130	1.49	30	
Chlorobenzene	108-90-7	49.32	98.64		50	49.85	99.70	70-130	1.07	30	
Ethylbenzene	100-41-4	46.25	92.5		50	47.6	95.20	70-130	2.88	30	
p & m-Xylene	179601-23-1	44.89	89.78		50	45.61	91.20	70-130	1.59	30	
o-Xylene	95-47-6	46.61	93.22		50	47.18	94.40	70-130	1.22	30	
1,2,3-Trichloropropane	96-18-4	55.24	110.48		50	53.96	108.00	70-130	2.34	30	
Isopropylbenzene	98-82-8	47.14	94.28		50	47.48	95.00	70-130	0.72	30	
1,3,5-Trimethylbenzene	108-67-8	46.78	93.56		50	50.05	100.00	70-130	6.75	30	
1,2,4-Trimethylbenzene	95-63-6	48.90	97.8		50	51.28	103.00	70-130	4.75	30	
1,3-Dichlorobenzene	541-73-1	50.94	101.88		50	52.14	104.00	70-130	2.33	30	
1,4-Dichlorobenzene	106-46-7	47.07	94.14		50	48.91	97.80	70-130	3.83	30	
1,2-Dichlorobenzene	95-50-1	49.87	99.74		50	50.92	102.00	70-130	2.08	30	
1,2,4-Trichlorobenzene	120-82-1	46.18	92.36		50	46.89	93.80	70-130	1.53	30	
Naphthalene	91-20-3	45.95	91.9		50	46.86	93.70	70-130	1.96	30	
1,2,3-Trichlorobenzene	87-61-6	44.55	89.1		50	45.51	91.00	70-130	2.13	30	
2-Methylnaphthalene	91-57-6	42.53	85.06		50	41.88	83.80	70-130	1.54	30	

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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Duplicate RPD Summary

Organics in Air by EPA TO-17 Using Beacon Sampler

Duplicate Sample: TWA-PSV-05-DUP (0007984-07) Sample: TWA-PSV-05 (0007984-06) Average RPD: 0.00%

Analyte	CAS#	Duplicate Result (µg/m³)	Dup Q	Sample Result (µg/m³)	Samp Q	LOQ (µg/m³)	RPD (%)	RPD Limit	Q
Vinyl Chloride	75-01-4	<0.612	U	<0.612	U	0.612	0.0	25	
1,1-Dichloroethene	75-35-4	<1.50	U	<1.50	U	1.50	0.0	25	
Methylene Chloride	75-09-2	<1.42	U	<1.42	U	1.42	0.0	25	
1,1,2-Trichlorotrifluoroethane (Fr.113)	76-13-1	<0.557	U	<0.557	U	0.557	0.0	25	
trans-1,2-Dichloroethene	156-60-5	<1.13	U	<1.13	U	1.13	0.0	25	
Methyl-t-butyl ether	1634-04-4	<2.48	U	<2.48	U	2.48	0.0	25	
1,1-Dichloroethane	75-34-3	<0.584	U	<0.584	U	0.584	0.0	25	
cis-1,2-Dichloroethene	156-59-2	<0.936	U	<0.936	U	0.936	0.0	25	
Chloroform	67-66-3	<1.42	U	<1.42	U	1.42	0.0	25	
1,2-Dichloroethane	107-06-2	<0.886	U	<0.886	U	0.886	0.0	25	
1,1,1-Trichloroethane	71-55-6	<0.472	U	<0.472	U	0.472	0.0	25	
Carbon Tetrachloride	56-23-5	<1.15	U	<1.15	U	1.15	0.0	25	
Benzene	71-43-2	<2.34	U	<2.34	U	2.34	0.0	25	
Trichloroethene	79-01-6	<1.50	U	<1.50	U	1.50	0.0	25	
1,4-Dioxane	123-91-1	<1.21	U	<1.21	U	1.21	0.0	25	
1,1,2-Trichloroethane	79-00-5	<1.50	U	<1.50	U	1.50	0.0	25	
Toluene	108-88-3	<3.10	U	<3.10	U	3.10	0.0	25	
1,2-Dibromoethane (EDB)	106-93-4	<1.27	U	<1.27	U	1.27	0.0	25	
Tetrachloroethene	127-18-4	<1.21	U	<1.21	U	1.21	0.0	25	
1,1,1,2-Tetrachloroethane	630-20-6	<1.21	U	<1.21	U	1.21	0.0	25	
Chlorobenzene	108-90-7	<0.584	U	<0.584	U	0.584	0.0	25	
Ethylbenzene	100-41-4	<1.46	U	<1.46	U	1.46	0.0	25	
p & m-Xylene	179601-23-1	<1.41	U	<1.41	U	1.41	0.0	25	
o-Xylene	95-47-6	<1.41	U	<1.41	U	1.41	0.0	25	
1,2,3-Trichloropropane	96-18-4	<0.661	U	<0.661	U	0.661	0.0	25	
Isopropylbenzene	98-82-8	<1.49	U	<1.49	U	1.49	0.0	25	
1,3,5-Trimethylbenzene	108-67-8	<1.49	U	<1.49	U	1.49	0.0	25	
1,2,4-Trimethylbenzene	95-63-6	<1.49	U	<1.49	U	1.49	0.0	25	
1,3-Dichlorobenzene	541-73-1	<0.661	U	<0.661	U	0.661	0.0	25	
1,4-Dichlorobenzene	106-46-7	<0.661	U	<0.661	U	0.661	0.0	25	
1,2-Dichlorobenzene	95-50-1	<0.661	U	<0.661	U	0.661	0.0	25	
1,2,4-Trichlorobenzene	120-82-1	<1.27	U	<1.27	U	1.27	0.0	25	
Naphthalene	91-20-3	<0.620	U	<0.620	U	0.620	0.0	25	
1,2,3-Trichlorobenzene	87-61-6	<1.27	U	<1.27	U	1.27	0.0	25	
2-Methylnaphthalene	91-57-6	<0.653	U	<0.653	U	0.653	0.0	25	
Total Aliphatics C5-C8	C5-C8TPH	<6.53		<6.53		6.53	0.0		
Total Aliphatics C9-C12 (ug/m3)		<3.10		<3.10		3.10	0.0		
Total Aromatics C9-C10	C9C10AROM	<0.620		<0.620		0.620	0.0		

Notes: + Field Duplicate RPD out of laboratory acceptance limits.

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Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

QC/CLP Tables

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2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Form 1

Volatile Analysis Data Package Sequence Summary

Method: TO-17 (Passive)

Sequence: B24I002 **Instrument:** S System

Lab Sample ID	Client Sample ID	DF	File ID	QC Description
B24I002-TUN1	MS Tune	1.00	S24090301.D	MS Tune
24I0002-BLK1	Blank	1.00	S24090302.D	Method Blank
24I0002-BS1	LCS	1.00	S24090305.D	LCS, Calibration Source Verification
B24I002-ICV1	Initial Cal Check	1.00	S24090306.D	LCSD, Second Source Verification/ICV
0007984-01	Trip 1	1.00	S24090307.D	
0007984-02	TWA-PSV-01	1.00	S24090308.D	
0007984-03	TWA-PSV-02	1.00	S24090309.D	
0007984-04	TWA-PSV-03	1.00	S24090310.D	
0007984-05	TWA-PSV-04	1.00	S24090311.D	
0007984-06	TWA-PSV-05	1.00	S24090312.D	
0007984-07	TWA-PSV-05-DUP	1.00	S24090313.D	
B24I002-CCB1	Calibration Blank	1.00	S24090315.D	Lab Blank
B24I002-CCV1	Calibration Check	1.00	S24090316.D	Closing Calibration Verification

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Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 2 - Form II A VOA
Volatile Deuterated Monitoring Compound Recovery Summary

Method: TO-17 (Passive)
Sequence: B24I002

Instrument: S System
QC Limits: 70.00 - 130.00%

+ values are outside method/contract required QC limits

Lab Number	Client Sample Name	File ID	1,2-DCA-d4		Toluene-d8		Bromofluorobenzene	
			Calibration RT:	3.75	Calibration RT:	5.27	Calibration RT:	7.34
			Recovery	*RT*	*Recovery*	*RT*	*Recovery*	*RT*
24I0002-BLK1	Method Blank	S24090302.D	115.4	3.75	105.6	5.27	75.5	7.34
24I0002-BS1	LCS, Primary Calibration Source	S24090305.D	112.4	3.75	100.3	5.26	86.1	7.34
B24I002-ICV1	LCSD, Second Source	S24090306.D	109.9	3.75	99.3	5.27	80.4	7.34
0007984-01	Trip 1	S24090307.D	112.2	3.75	94.3	5.27	82.6	7.34
0007984-02	TWA-PSV-01	S24090308.D	122.2	3.75	94.9	5.26	85.4	7.34
0007984-03	TWA-PSV-02	S24090309.D	116.2	3.75	93.4	5.27	80.1	7.34
0007984-04	TWA-PSV-03	S24090310.D	116.8	3.75	96.9	5.27	81.3	7.34
0007984-05	TWA-PSV-04	S24090311.D	114.0	3.75	96.4	5.27	78.5	7.34
0007984-06	TWA-PSV-05	S24090312.D	120.3	3.75	95.6	5.26	83.8	7.34
0007984-07	TWA-PSV-05-DUP	S24090313.D	124.1	3.75	93.4	5.27	82.1	7.34
B24I002-CCB1	CCB1	S24090315.D	121	3.75	105.3	5.27	68.1+ +	7.34
B24I002-CCV1	Closing Calibration Verification	S24090316.D	118.4	3.75	101.1	5.27	80.5	7.34

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2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 3 - Form III B VOA

Volatile Laboratory Control Sample Recoveries

Lab Sample No.: 24I0002-BS1 **QC Description:** LCS

Instrument: S System **Sequence:** B24I002

Method: TO-17 (Passive) **File ID:** S24090305.D

+ values are outside method/contract required QC limits

Compound	Spike Added (ng)	Spike Result (ng)	% Recovery	Q	QC Limits	Notes
Vinyl Chloride	50.0	58.7	117.3		70 - 130	
1,1-Dichloroethene	50.0	51.2	102.3		70 - 130	
Methylene Chloride	50.0	53.8	107.5		70 - 130	
1,1,2-Trichlorotrifluoroethane (Fr.113)	50.0	55.6	111.2		70 - 130	
trans-1,2-Dichloroethene	50.0	54.8	109.5		70 - 130	
Methyl-t-butyl ether	50.0	50.6	101.3		70 - 130	
1,1-Dichloroethane	50.0	56.0	112.0		70 - 130	
cis-1,2-Dichloroethene	50.0	49.7	99.3		70 - 130	
Chloroform	50.0	56.6	113.2		70 - 130	
1,2-Dichloroethane	50.0	57.8	115.5		70 - 130	
1,1,1-Trichloroethane	50.0	55.5	110.9		70 - 130	
Carbon Tetrachloride	50.0	57.5	114.9		70 - 130	
Benzene	50.0	51.1	102.3		70 - 130	
Trichloroethene	50.0	49.0	97.9		70 - 130	
1,4-Dioxane	50.0	46.0	92.0		70 - 130	
1,1,2-Trichloroethane	50.0	53.8	107.6		70 - 130	
Toluene	50.0	48.1	96.1		70 - 130	
1,2-Dibromoethane (EDB)	50.0	56.6	113.2		70 - 130	
Tetrachloroethene	50.0	49.7	99.5		70 - 130	
1,1,1,2-Tetrachloroethane	50.0	56.7	113.4		70 - 130	
Chlorobenzene	50.0	49.3	98.6		70 - 130	
Ethylbenzene	50.0	46.3	92.5		70 - 130	
p & m-Xylene	50.0	44.9	89.8		70 - 130	
o-Xylene	50.0	46.6	93.2		70 - 130	
1,2,3-Trichloropropane	50.0	55.2	110.5		70 - 130	
Isopropylbenzene	50.0	47.1	94.3		70 - 130	
1,3,5-Trimethylbenzene	50.0	46.8	93.6		70 - 130	
1,2,4-Trimethylbenzene	50.0	48.9	97.8		70 - 130	
1,3-Dichlorobenzene	50.0	50.9	101.9		70 - 130	
1,4-Dichlorobenzene	50.0	47.1	94.1		70 - 130	
1,2-Dichlorobenzene	50.0	49.9	99.7		70 - 130	
1,2,4-Trichlorobenzene	50.0	46.2	92.4		70 - 130	
Naphthalene	50.0	46.0	91.9		70 - 130	
1,2,3-Trichlorobenzene	50.0	44.6	89.1		70 - 130	
2-Methylnaphthalene	50.0	42.5	85.1		70 - 130	

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Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 3 - Form III B VOA
Volatile LCS/LCSD Recovery/RPD

Lab Sample No.: B24I002-ICV1
QC Description: LCSD, Second Source Standard
Method: TO-17 (Passive)
Sequence: B24I002
Batch: B24I002
Instrument: S System
LCSD FileID: S24090306.D
LCS FileID: S24090305.D

+ values are outside method/contract required QC limits

Compound	Spike Added (ng)	LCS Result (ng)	LCSD Result (ng)	LCSD Recovery (%)	LCSD RPD (%)	RPD Limit (%)	LCSD Recovery Limits (%)
Vinyl Chloride	50	58.67	48.24	96.50	19.51	30	70 - 130
1,1-Dichloroethene	50	51.15	48.88	97.80	4.54	30	70 - 130
Methylene Chloride	50	53.76	53.66	107.00	0.19	30	70 - 130
1,1,2-Trichlorotrifluoroethane (Fr.113)	50	55.58	54.07	108.00	2.75	30	70 - 130
trans-1,2-Dichloroethene	50	54.76	55.17	110.00	0.75	30	70 - 130
Methyl-t-butyl ether	50	50.64	48.62	97.20	4.07	30	70 - 130
1,1-Dichloroethane	50	55.98	56.79	114.00	1.44	30	70 - 130
cis-1,2-Dichloroethene	50	49.67	50.64	101.00	1.93	30	70 - 130
Chloroform	50	56.59	57.84	116.00	2.18	30	70 - 130
1,2-Dichloroethane	50	57.75	59.02	118.00	2.18	30	70 - 130
1,1,1-Trichloroethane	50	55.46	55.3	111.00	0.29	30	70 - 130
Carbon Tetrachloride	50	57.46	58.35	117.00	1.54	30	70 - 130
Benzene	50	51.13	52.18	104.00	2.03	30	70 - 130
Trichloroethene	50	48.96	50.27	101.00	2.64	30	70 - 130
1,4-Dioxane	50	45.99	43.2	86.40	6.26	30	70 - 130
1,1,2-Trichloroethane	50	53.78	54.82	110.00	1.92	30	70 - 130
Toluene	50	48.05	50.48	101.00	4.93	30	70 - 130
1,2-Dibromoethane (EDB)	50	56.58	58.53	117.00	3.39	30	70 - 130
Tetrachloroethene	50	49.74	52.16	104.00	4.75	30	70 - 130
1,1,1,2-Tetrachloroethane	50	56.71	57.56	115.00	1.49	30	70 - 130
Chlorobenzene	50	49.32	49.85	99.70	1.07	30	70 - 130
Ethylbenzene	50	46.25	47.6	95.20	2.88	30	70 - 130
p & m-Xylene	50	44.89	45.61	91.20	1.59	30	70 - 130
o-Xylene	50	46.61	47.18	94.40	1.22	30	70 - 130
1,2,3-Trichloropropane	50	55.24	53.96	108.00	2.34	30	70 - 130
Isopropylbenzene	50	47.14	47.48	95.00	0.72	30	70 - 130
1,3,5-Trimethylbenzene	50	46.78	50.05	100.00	6.75	30	70 - 130
1,2,4-Trimethylbenzene	50	48.90	51.28	103.00	4.75	30	70 - 130
1,3-Dichlorobenzene	50	50.94	52.14	104.00	2.33	30	70 - 130
1,4-Dichlorobenzene	50	47.07	48.91	97.80	3.83	30	70 - 130
1,2-Dichlorobenzene	50	49.87	50.92	102.00	2.08	30	70 - 130
1,2,4-Trichlorobenzene	50	46.18	46.89	93.80	1.53	30	70 - 130
Naphthalene	50	45.95	46.86	93.70	1.96	30	70 - 130
1,2,3-Trichlorobenzene	50	44.55	45.51	91.00	2.13	30	70 - 130
2-Methylnaphthalene	50	42.53	41.88	83.80	1.54	30	70 - 130

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
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Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 3 - Form III C VOA

Volatile Laboratory Sample Duplicate Data Sheet

+ values are outside method/contract required QC limits

	Field Duplicate	Initial Sample			
Lab Number:	0007984-07	0007984-06			
Sample Name:	TWA-PSV-05-DUP	TWA-PSV-05			
Compound	**Result (µg/m³)**	**Result (µg/m³)**	**RPD**	**RPD Limit**	**Q**
Total Aliphatics C9-C12 (ug/m3)	<3.10	<3.10			
Total Aliphatics C5-C8	<6.53	<6.53			
Total Aromatics C9-C10	<0.620	<0.620			
Vinyl Chloride	<0.612	<0.612		25	
1,1-Dichloroethene	<1.50	<1.50		25	
Methylene Chloride	<1.42	<1.42		25	
1,1,2-Trichlorotrifluoroethane (Fr.113)	<0.557	<0.557		25	
trans-1,2-Dichloroethene	<1.13	<1.13		25	
Methyl-t-butyl ether	<2.48	<2.48		25	
1,1-Dichloroethane	<0.584	<0.584		25	
cis-1,2-Dichloroethene	<0.936	<0.936		25	
Chloroform	<1.42	<1.42		25	
1,2-Dichloroethane	<0.886	<0.886		25	
1,1,1-Trichloroethane	<0.472	<0.472		25	
Carbon Tetrachloride	<1.15	<1.15		25	
Benzene	<2.34	<2.34		25	
Trichloroethene	<1.50	<1.50		25	
1,4-Dioxane	<1.21	<1.21		25	
1,1,2-Trichloroethane	<1.50	<1.50		25	
Toluene	<3.10	<3.10		25	
1,2-Dibromoethane (EDB)	<1.27	<1.27		25	
Tetrachloroethene	<1.21	<1.21		25	
1,1,1,2-Tetrachloroethane	<1.21	<1.21		25	
Chlorobenzene	<0.584	<0.584		25	
Ethylbenzene	<1.46	<1.46		25	
p & m-Xylene	<1.41	<1.41		25	
o-Xylene	<1.41	<1.41		25	
1,2,3-Trichloropropane	<0.661	<0.661		25	
Isopropylbenzene	<1.49	<1.49		25	
1,3,5-Trimethylbenzene	<1.49	<1.49		25	
1,2,4-Trimethylbenzene	<1.49	<1.49		25	
1,3-Dichlorobenzene	<0.661	<0.661		25	
1,4-Dichlorobenzene	<0.661	<0.661		25	
1,2-Dichlorobenzene	<0.661	<0.661		25	
1,2,4-Trichlorobenzene	<1.27	<1.27		25	
Naphthalene	<0.620	<0.620		25	
1,2,3-Trichlorobenzene	<1.27	<1.27		25	

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 3 - Form III C VOA

Volatile Laboratory Sample Duplicate Data Sheet

+ values are outside method/contract required QC limits

	Field Duplicate	Initial Sample			
Lab Number:	0007984-07	0007984-06			
Sample Name:	TWA-PSV-05-DUP	TWA-PSV-05			
Compound	**Result (µg/m³)**	**Result (µg/m³)**	**RPD**	**RPD Limit**	**Q**
2-Methylnaphthalene	<0.653	<0.653		25	

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 4 - Form IV VOA

Volatile Method Blank Summary

Sequence: B24G062 **Batch:** B24G062 **Matrix:** Soil Gas **Analysis:** TO-17 (Passive)

EPA Sample No.: B24G062-ICB1 **Instrument:** S System **Date Analyzed**: 07/09/2024

Sample Name	Lab Sample Number	Lab File ID	Time Analyzed
MS Tune	B24G062-TUN1	S24070901.D	11:45:00
Cal Standard	B24G062-CAL1	S24070902.D	12:15:00
Cal Standard	B24G062-CAL2	S24070903.D	12:46:00
Cal Standard	B24G062-CAL3	S24070904.D	13:16:00
Cal Standard	B24G062-CAL4	S24070905.D	13:47:00
Cal Standard	B24G062-CAL5	S24070906.D	14:18:00
Cal Standard	B24G062-CAL6	S24070907.D	14:49:00
Cal Standard	B24G062-CAL7	S24070908.D	15:19:00
Cal Standard	B24G062-CAL8	S24070909.D	15:50:00
Cal Standard	B24G062-CAL9	S24070918.D	21:34:00
Cal Standard	B24G062-CALA	S24070919.D	22:05:00
Cal Standard	B24G062-CALB	S24070920.D	22:35:00
Cal Standard	B24G062-CALC	S24070921.D	23:06:00
LCSD/Second Source Verification/CALV	B24G062-ICV1	S24070924.D	0:39:00
Lab Blank/Initial Calibration Blank	B24G062-ICB1	S24070925.D	1:10:00

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 4 - Form IV VOA

Volatile Method Blank Summary

Sequence: B24I002 **Batch:** B24I002 **Matrix:** Soil Gas **Analysis:** TO-17 (Passive)

EPA Sample No.: 24I0002-BLK1 **Instrument:** S System **Date Analyzed**: 09/03/2024

Sample Name	Lab Sample Number	Lab File ID	Time Analyzed
MS Tune	B24I002-TUN1	S24090301.D	13:02:00
Lab Blank	24I0002-BLK1	S24090302.D	13:32:00
LCS, Calibration Source Verification	24I0002-BS1	S24090305.D	15:10:00
LCSD/Second Source Verification/CALV	B24I002-ICV1	S24090306.D	15:39:00
Trip 1	0007984-01	S24090307.D	16:09:00
TWA-PSV-01	0007984-02	S24090308.D	16:44:00
TWA-PSV-02	0007984-03	S24090309.D	17:18:00
TWA-PSV-03	0007984-04	S24090310.D	17:54:00
TWA-PSV-04	0007984-05	S24090311.D	18:29:00
TWA-PSV-05	0007984-06	S24090312.D	19:04:00
TWA-PSV-05-DUP	0007984-07	S24090313.D	19:38:00
Lab Blank	B24I002-CCB1	S24090315.D	20:39:00
Continuing Calibration Verification	B24I002-CCV1	S24090316.D	21:09:00

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 5 - Form V VOA
Volatile Organic Instrument Performance Check (BFB)
TO-17 (Passive)

Laboratory:	Beacon Environmental	SDG:	
Client:	Maul Foster & Alongi, Inc.	Project Site:	Tacoma, WA
Lab File ID:	S24070901.D	Injection Date:	07/09/24
Instrument ID:	S System	Injection Time:	11:45
Sequence:	B24G062	Lab Sample ID:	B24G062-TUN1

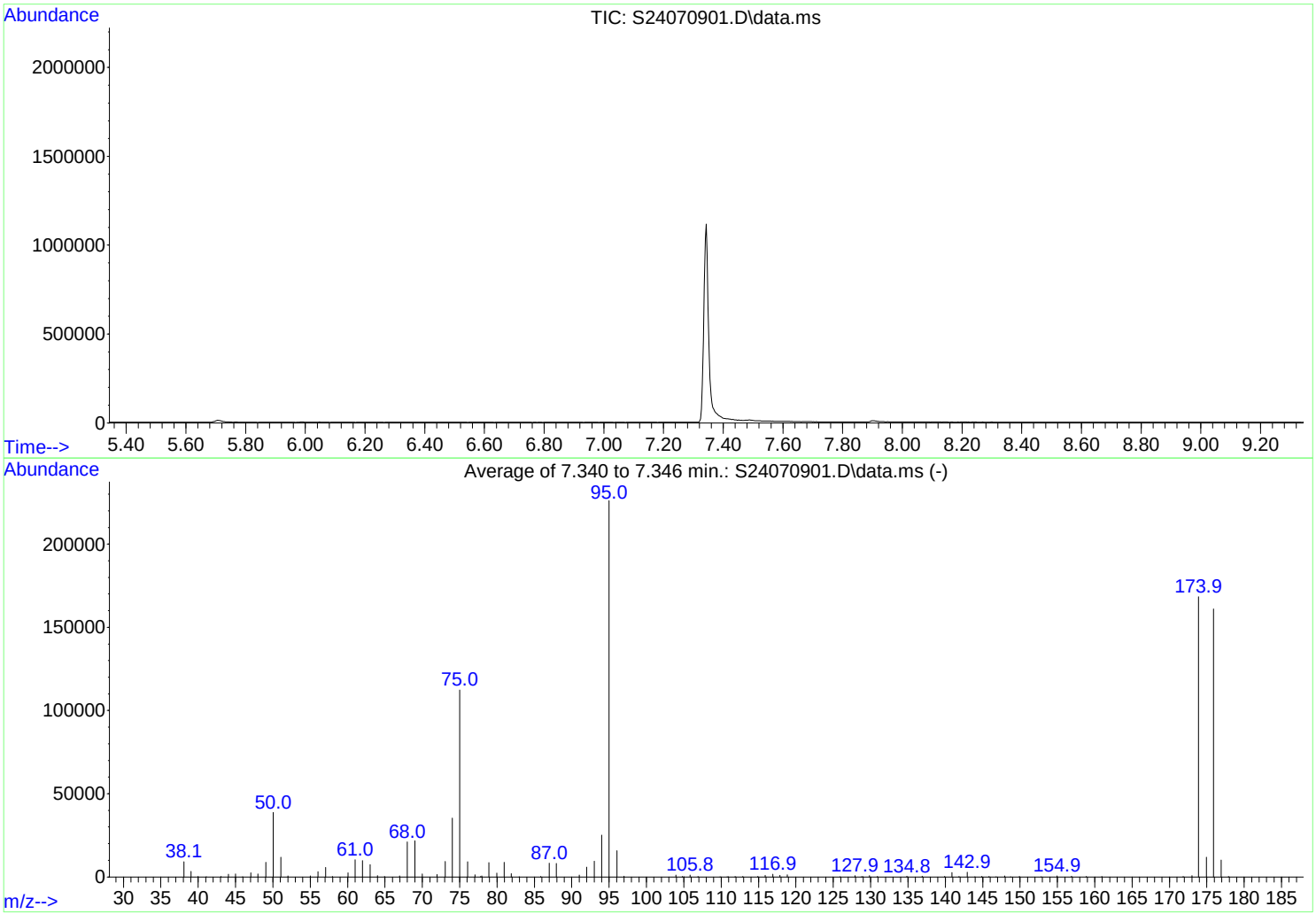
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	Pass/Fail
50	8 - 40% of 95	17.1	PASS
75	30 - 66% of 95	49.7	PASS
95	Base peak, 100% relative abundance	100.0	PASS
96	5 - 9% of 95	7.0	PASS
173	Less than 2% of 174	0.5	PASS
174	50 - 120% of 95	74.5	PASS
175	4 - 9% of 174	7.0	PASS
176	93 - 101% of 174	95.7	PASS
177	5 - 9% of 176	6.3	PASS

BFB

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070901.D
Acq On : 09 Jul 2024 11:45 am
Operator : KAI
Sample : SEQ-TUN1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: ALI9.P

Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Title : SOURCE AREA VOA ANALYSIS
Last Update : Tue Jul 16 12:56:25 2024



AutoFind: Scans 2278, 2279, 2280; Background Corrected with Scan 2269

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	38747	PASS
75	95	30	60	49.7	112285	PASS
95	95	100	100	100.0	226112	PASS
96	95	5	9	7.0	15743	PASS
173	174	0.00	2	0.5	823	PASS
174	95	50	200	74.5	168363	PASS
175	174	5	9	7.0	11768	PASS
176	174	95	102	95.7	161088	PASS
177	176	5	9	6.3	10226	PASS

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 5 - Form V VOA
Volatile Organic Instrument Performance Check (BFB)
TO-17 (Passive)

Laboratory:	Beacon Environmental	SDG:	
Client:	Maul Foster & Alongi, Inc.	Project Site:	Tacoma, WA
Lab File ID:	S24090301.D	Injection Date:	09/03/24
Instrument ID:	S System	Injection Time:	13:02
Sequence:	B24I002	Lab Sample ID:	B24I002-TUN1

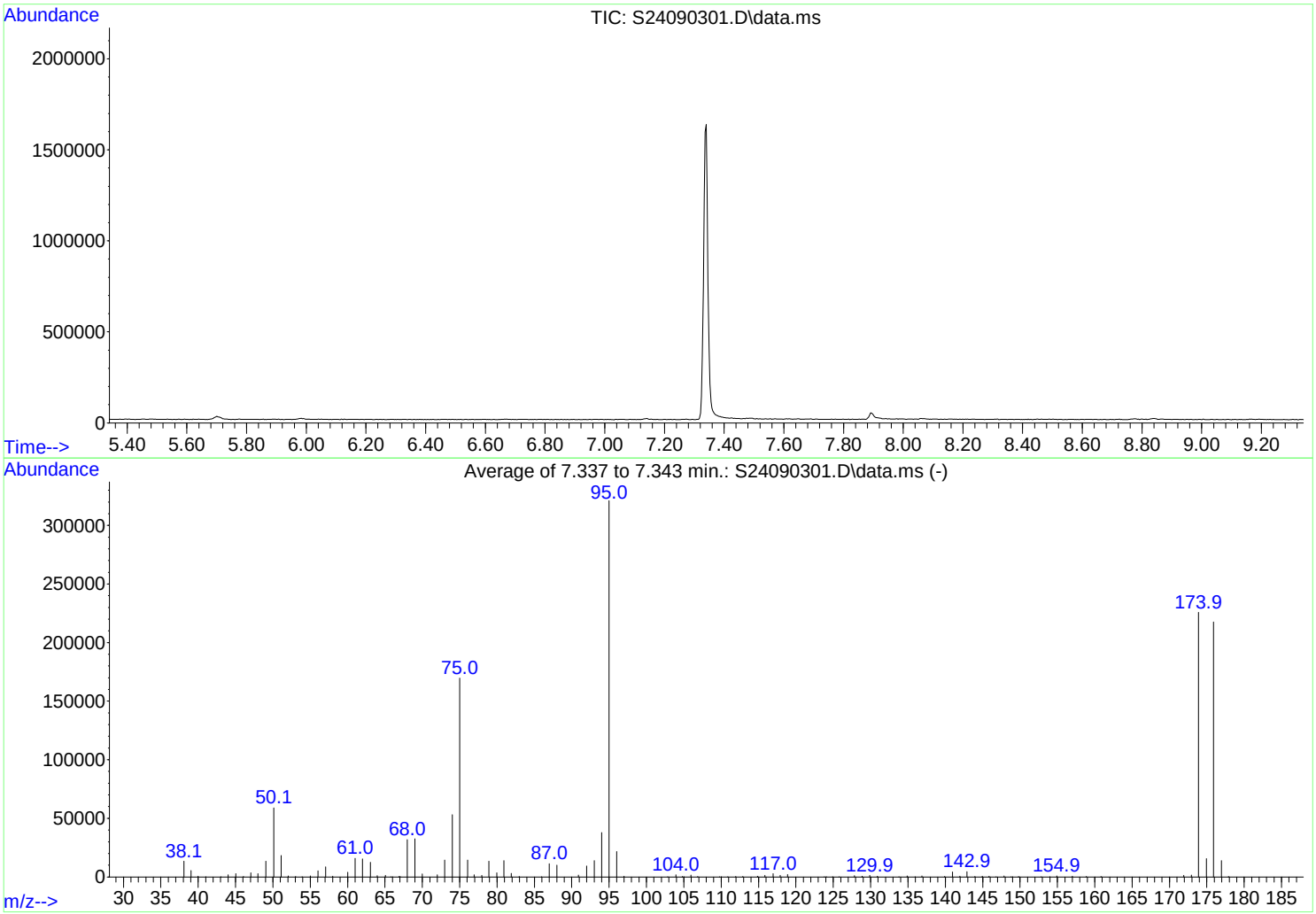
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	Pass/Fail
50	8 - 40% of 95	18.4	PASS
75	30 - 66% of 95	52.8	PASS
95	Base peak, 100% relative abundance	100.0	PASS
96	5 - 9% of 95	6.8	PASS
173	Less than 2% of 174	0.7	PASS
174	50 - 120% of 95	70.3	PASS
175	4 - 9% of 174	7.0	PASS
176	93 - 101% of 174	96.4	PASS
177	5 - 9% of 176	6.4	PASS

BFB

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090301.D
Acq On : 03 Sep 2024 01:02 pm
Operator : KAI
Sample : B24I002-TUN1
Misc : BFB
ALS Vial : 1 Sample Multiplier: 1

Integration File: ALI9.P

Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Title : SOURCE AREA VOA ANALYSIS
Last Update : Mon Jul 22 13:57:58 2024



AutoFind: Scans 2277, 2278, 2279; Background Corrected with Scan 2268

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.4	58987	PASS
75	95	30	60	52.8	169600	PASS
95	95	100	100	100.0	321131	PASS
96	95	5	9	6.8	21776	PASS
173	174	0.00	2	0.7	1523	PASS
174	95	50	200	70.3	225877	PASS
175	174	5	9	7.0	15699	PASS
176	174	95	102	96.4	217664	PASS
177	176	5	9	6.4	13970	PASS

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 5 - Form IV VOA
Volatile Organic Instrument Performance Check (BFB) Sequence Summary

Sequence: B24G062 **Batch:** B24G062 **Matrix:** Soil Gas

EPA Sample No.: B24G062-TUN **Instrument:** S System **Date Analyzed**: 07/09/2024

+ values are outside method/contract required QC limits

	Lab Sample Number	Lab File ID	Time Analyzed	Tune to Analysis (hr)	Q
B24G062-TUN1	B24G062-TUN1	S24070901.D	11:45:00	0.00	
B24G062-CAL1	B24G062-CAL1	S24070902.D	12:15:00	0.50	
B24G062-CAL2	B24G062-CAL2	S24070903.D	12:46:00	1.02	
B24G062-CAL3	B24G062-CAL3	S24070904.D	13:16:00	1.52	
B24G062-CAL4	B24G062-CAL4	S24070905.D	13:47:00	2.03	
B24G062-CAL5	B24G062-CAL5	S24070906.D	14:18:00	2.55	
B24G062-CAL6	B24G062-CAL6	S24070907.D	14:49:00	3.07	
B24G062-CAL7	B24G062-CAL7	S24070908.D	15:19:00	3.57	
B24G062-CAL8	B24G062-CAL8	S24070909.D	15:50:00	4.08	
B24G062-CAL9	B24G062-CAL9	S24070918.D	21:34:00	9.82	
B24G062-CALA	B24G062-CALA	S24070919.D	22:05:00	10.33	
B24G062-CALB	B24G062-CALB	S24070920.D	22:35:00	10.83	
B24G062-CALC	B24G062-CALC	S24070921.D	23:06:00	11.35	
LCSD, Calibration Verification, Second Source	B24G062-ICV1	S24070924.D	0:39:00	12.90	
Lab Blank	B24G062-ICB1	S24070925.D	1:10:00	13.42	

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 5 - Form IV VOA
Volatile Organic Instrument Performance Check (BFB) Sequence Summary

Sequence: B24I002 **Batch:** B24I002 **Matrix:** Air

EPA Sample No.: B24I002-TUN **Instrument:** S System **Date Analyzed**: 09/03/2024

+ values are outside method/contract required QC limits

	Lab Sample Number	Lab File ID	Time Analyzed	Tune to Analysis (hr)	Q
B24I002-TUN1	B24I002-TUN1	S24090301.D	13:02:00	0.00	
Method Blank	24I0002-BLK1	S24090302.D	13:32:00	0.50	
LCS, Primary Calibration Source	24I0002-BS1	S24090305.D	15:10:00	2.13	
LCSD, Calibration Verification, Second Source	B24I002-ICV1	S24090306.D	15:39:00	2.62	
0007984-01	0007984-01	S24090307.D	16:09:00	3.12	
0007984-02	0007984-02	S24090308.D	16:44:00	3.70	
0007984-03	0007984-03	S24090309.D	17:18:00	4.27	
0007984-04	0007984-04	S24090310.D	17:54:00	4.87	
0007984-05	0007984-05	S24090311.D	18:29:00	5.45	
0007984-06	0007984-06	S24090312.D	19:04:00	6.03	
0007984-07	0007984-07	S24090313.D	19:38:00	6.60	
Continuing Calibration Blank	B24I002-CCB1	S24090315.D	20:39:00	7.62	
Continuing Calibration Verification	B24I002-CCV1	S24090316.D	21:09:00	8.12	

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 6 - Form VI A VOA
Volatile Organics Initial Calibration Data

Calibration: BG40008 **Calibration Start:** 07/09/2024 12:15

Instrument: S System **Calibration End:** 07/09/2024 23:06

	Lab File ID:		S24070902.D	S24070903.D	S24070904.D	S24070905.D	S24070906.D	S24070907.D	S24070908.D
	Compound Associated QC		***Response Factors/Responses***						
	ISTD	SUR	**2.5 ng**	**5 ng**	**10 ng**	**25 ng**	**50 ng**	**100 ng**	**200 ng**
Vinyl Chloride	FBZ	DCA12D4	0.28	0.27	0.26	0.16	0.24	0.23	0.26
1,1-Dichloroethene	FBZ	DCA12D4	0.22	0.20	0.21	0.20	0.20	0.21	0.21
Methylene Chloride	FBZ	DCA12D4	0.26	0.30	0.28	0.27	0.28	0.28	0.28
1,1,2-Trichlorotrifluoroethane (Fr.113)	FBZ	DCA12D4	0.25	0.25	0.27	0.26	0.27	0.27	0.28
trans-1,2-Dichloroethene	FBZ	DCA12D4	0.40	0.39	0.34	0.37	0.38	0.39	0.39
Methyl-t-butyl ether	FBZ	DCA12D4	0.90	0.78	0.77	0.76	0.78	0.78	0.79
1,1-Dichloroethane	FBZ	DCA12D4	0.50	0.50	0.48	0.49	0.49	0.50	0.50
cis-1,2-Dichloroethene	FBZ	DCA12D4	0.27	0.26	0.23	0.25	0.25	0.26	0.26
Chloroform	FBZ	DCA12D4	0.51	0.52	0.49	0.50	0.51	0.51	0.52
1,2-DCA-d4	FBZ	DCA12D4	0.36	0.35	0.36	0.36	0.36	0.35	0.35
1,2-Dichloroethane	FBZ	DCA12D4	0.43	0.45	0.44	0.45	0.44	0.44	0.45
1,1,1-Trichloroethane	FBZ	DCA12D4	0.38	0.40	0.39	0.40	0.42	0.44	0.45
Carbon Tetrachloride	FBZ	DCA12D4	0.29	0.32	0.31	0.32	0.33	0.36	0.38
Benzene	FBZ	DCA12D4	-----	-----	0.32	0.27	0.27	0.27	0.26
Trichloroethene	FBZ	DCA12D4	0.30	0.28	0.27	0.28	0.29	0.29	0.29
1,4-Dioxane	FBZ	DCA12D4	0.19	0.20	0.20	0.20	0.21	0.20	0.22
1,1,2-Trichloroethane	FBZ	DCA12D4	0.16	0.15	0.16	0.16	0.17	0.17	0.17
Toluene-d8	CLBZD5	BZMED8	1.27	1.27	1.27	1.30	1.33	1.35	1.37
Toluene	CLBZD5	BZMED8	1.01	0.93	0.91	0.90	0.91	0.93	0.94
1,2-Dibromoethane (EDB)	CLBZD5	BZMED8	0.33	0.36	0.35	0.36	0.37	0.38	0.41
Tetrachloroethene	CLBZD5	BZMED8	0.34	0.34	0.34	0.34	0.34	0.33	0.34
1,1,1,2-Tetrachloroethane	CLBZD5	BZMED8	0.28	0.31	0.29	0.30	0.30	0.32	0.35
Chlorobenzene	CLBZD5	BZMED8	1.07	1.05	1.05	1.02	1.03	1.03	1.06
Ethylbenzene	CLBZD5	BZMED8	0.46	0.49	0.50	0.51	0.51	0.52	0.55
p & m-Xylene	CLBZD5	BZMED8	0.62	0.59	0.56	0.60	0.62	0.66	0.69
o-Xylene	CLBZD5	BZMED8	0.53	0.55	0.55	0.57	0.60	0.63	0.66
1,2,3-Trichloropropane	CLBZD5	BZMED8	0.59	0.60	0.58	0.61	0.61	0.62	0.66
Isopropylbenzene	CLBZD5	BZMED8	1.43	1.52	1.57	1.61	1.66	1.71	1.82
Bromofluorobenzene	CLBZD5	BR4FBZ	2368	2855	5355	14972	31361	59683	135682
1,3,5-Trimethylbenzene	DCBZ14D4	BR4FBZ	1.41	1.23	1.31	1.24	1.28	1.28	1.32
1,2,4-Trimethylbenzene	DCBZ14D4	BR4FBZ	1.21	1.16	1.26	1.22	1.24	1.24	1.28
1,3-Dichlorobenzene	DCBZ14D4	BR4FBZ	1.41	1.42	1.41	1.48	1.51	1.54	1.55
1,4-Dichlorobenzene	DCBZ14D4	BR4FBZ	1.87	1.64	1.53	1.49	1.53	1.56	1.61
1,2-Dichlorobenzene	DCBZ14D4	BR4FBZ	1.86	1.71	1.64	1.59	1.56	1.53	1.58
1,2,4-Trichlorobenzene	DCBZ14D4	BR4FBZ	1.04	1.22	1.14	1.11	1.11	1.12	1.15
Naphthalene	DCBZ14D4	BR4FBZ	2.70	2.75	2.84	3.15	3.45	3.66	3.98
1,2,3-Trichlorobenzene	DCBZ14D4	BR4FBZ	1.17	1.18	1.22	1.16	1.16	1.13	1.18
2-Methylnaphthalene	DCBZ14D4	BR4FBZ	1818	4006	9147	30942	76943	167782	456355

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 6 - Form VI A VOA
Volatile Organics Initial Calibration Data

Calibration: BG40008 **Calibration Start:** 07/09/2024 12:15

Instrument: S System **Calibration End:** 07/09/2024 23:06

+ values are outside method/contract required QC limits

Lab File ID:	S24070909.D	S24070918.D	S24070919.D	S24070920.D		Acceptance Limits			
	Response Factors/Responses					≤30	≤30	≤ 30	≥ 0.99
	500 ng	**1000 ng**	**2000 ng**	**5000 ng**	**AVG RF**	**LOQ %RE**	**RV %RE**	**RSD**	**R^2**
Vinyl Chloride	0.28	0.26	----	----	0.248	15.02	15.02	15.02	
1,1-Dichloroethene	0.25	0.25	0.26	0.27	0.231	13.50	13.50	13.50	
Methylene Chloride	----	----	----	----	0.277	3.43	3.43	3.43	
1,1,2-Trichlorotrifluoroethane (Fr.113)	0.30	0.29	----	----	0.269	6.37	6.37	6.37	
trans-1,2-Dichloroethene	0.42	0.41	0.44	0.45	0.403	7.39	7.39	7.39	
Methyl-t-butyl ether	0.90	0.82	----	----	0.808	6.89	6.89	6.89	
1,1-Dichloroethane	0.53	0.51	----	----	0.500	2.89	2.89	2.89	
cis-1,2-Dichloroethene	0.28	0.27	0.29	0.31	0.271	9.08	9.08	9.08	
Chloroform	0.54	0.52	0.54	0.54	0.519	3.19	3.19	3.19	
1,2-DCA-d4	0.39	0.37	0.38	0.39	0.366	3.97	3.97	3.97	
1,2-Dichloroethane	0.48	0.45	----	----	0.447	2.85	2.85	2.85	
1,1,1-Trichloroethane	0.49	0.47	----	----	0.427	9.09	9.09	9.09	
Carbon Tetrachloride	0.43	0.42	----	----	0.350	14.03	14.03	14.03	
Benzene	0.29	0.27	0.30	0.27	0.275	7.80	7.80	7.80	
Trichloroethene	0.31	0.29	0.31	0.32	0.297	6.03	6.03	6.03	
1,4-Dioxane	0.24	0.22	----	----	0.211	7.05	7.05	7.05	
1,1,2-Trichloroethane	0.19	0.17	----	----	0.166	5.62	5.62	5.62	
Toluene-d8	1.53	1.43	1.54	1.38	1.336	10.41	10.41	10.41	
Toluene	1.05	0.98	1.07	0.92	0.943	8.58	8.58	8.58	
1,2-Dibromoethane (EDB)	0.42	0.40	----	----	0.377	8.22	8.22	8.22	
Tetrachloroethene	0.35	0.32	0.35	0.36	0.342	2.60	2.60	2.60	
1,1,1,2-Tetrachloroethane	0.38	0.36	----	----	0.321	11.05	11.05	11.05	
Chlorobenzene	1.17	1.08	----	----	1.062	4.08	4.08	4.08	
Ethylbenzene	0.62	0.57	0.63	0.56	0.535	9.97	9.97	9.97	
p & m-Xylene	0.76	0.70	0.78	0.69	0.655	10.81	10.81	10.81	
o-Xylene	0.72	0.67	0.75	0.67	0.623	11.87	11.87	11.87	
1,2,3-Trichloropropane	0.69	0.63	----	----	0.621	5.50	5.50	5.50	
Isopropylbenzene	2.05	1.86	----	----	1.692	11.31	11.31	11.31	
Bromofluorobenzene	358656	616848	1420064	3503693		19.40	9.22		0.997086
1,3,5-Trimethylbenzene	1.53	1.42	----	----	1.336	7.48	7.48	7.48	
1,2,4-Trimethylbenzene	1.40	1.31	----	----	1.258	5.37	5.37	5.37	
1,3-Dichlorobenzene	1.73	1.60	----	----	1.516	6.91	6.91	6.91	
1,4-Dichlorobenzene	1.76	1.65	----	----	1.629	7.43	7.43	7.43	
1,2-Dichlorobenzene	1.69	1.56	----	----	1.635	6.36	6.36	6.36	
1,2,4-Trichlorobenzene	1.27	1.19	----	----	1.150	6.04	6.04	6.04	
Naphthalene	4.53	4.23	----	----	3.477	19.33	19.33	19.33	
1,2,3-Trichlorobenzene	1.30	1.24	----	----	1.193	4.21	4.21	4.21	
2-Methylnaphthalene	1197649	2128729	-----	-----		30.30 +	35.52 +		0.998002

526 Underwood Lane
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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 7 - Form VII A VOA
Volatile Organics Continuing Calibration Data: Calibration Mid-Point

Sample No.: **B24G062-CAL5** **Calibration:** BG40008 **Calibration Start Date:** 07/09/2024 12:15

Sequence: B24G062 **Instrument:** S System **Lab File ID:** S24070906.D **Calibration End Date:** 07/09/2024 21:34

Method: TO-17 (Passive) + values are outside method/contract required QC limits

Compound	Mean RRF	RRF	Minimum RF	%D	%D Limit
Vinyl Chloride	0.25	0.24	0.1	-1.7	30
1,1-Dichloroethene	0.23	0.20	0.1	-13.3	30
Methylene Chloride	0.28	0.28	0.1	0.0	30
1,1,2-Trichlorotrifluoroethane (Fr.113)	0.27	0.27	0.1	-0.4	30
trans-1,2-Dichloroethene	0.40	0.38	0.1	-5.4	30
Methyl-t-butyl ether	0.81	0.78	0.1	-4.0	30
1,1-Dichloroethane	0.50	0.49	0.2	-1.6	30
cis-1,2-Dichloroethene	0.27	0.25	0.1	-7.9	30
Chloroform	0.52	0.51	0.2	-2.2	30
1,2-DCA-d4	0.37	0.36	0.1	-3.0	30
1,2-Dichloroethane	0.45	0.44	0.1	-0.5	30
1,1,1-Trichloroethane	0.43	0.42	0.1	-2.0	30
Carbon Tetrachloride	0.35	0.33	0.1	-5.3	30
Benzene	0.28	0.27	0.5	-2.1	30
Trichloroethene	0.30	0.29	0.2	-3.5	30
1,4-Dioxane	0.21	0.21	0.1	-1.1	30
1,1,2-Trichloroethane	0.17	0.17	0.1	0.8	30
Toluene-d8	1.34	1.33	0.4	-0.2	30
Toluene	0.94	0.91	0.4	-3.9	30
1,2-Dibromoethane (EDB)	0.38	0.37	0.1	-0.5	30
Tetrachloroethene	0.34	0.34	0.2	-0.3	30
1,1,1,2-Tetrachloroethane	0.32	0.30	0.1	-6.2	30
Chlorobenzene	1.06	1.03	0.5	-3.2	30
Ethylbenzene	0.54	0.51	0.1	-4.1	30
p & m-Xylene	0.66	0.62	0.1	-5.7	30
o-Xylene	0.62	0.60	0.3	-3.1	30
1,2,3-Trichloropropane	0.62	0.61	0.1	-1.5	30
Isopropylbenzene	1.69	1.66	0.1	-1.7	30
Bromofluorobenzene	0.41	0.37	0.1	-9.2	30
1,3,5-Trimethylbenzene	1.34	1.28	0.1	-4.2	30
1,2,4-Trimethylbenzene	1.26	1.24	0.1	-1.2	30
1,3-Dichlorobenzene	1.52	1.51	0.6	-0.7	30
1,4-Dichlorobenzene	1.63	1.53	0.5	-5.9	30
1,2-Dichlorobenzene	1.64	1.56	0.4	-4.6	30
1,2,4-Trichlorobenzene	1.15	1.11	0.2	-3.4	30
Naphthalene	3.48	3.45	0.1	-0.7	30
1,2,3-Trichlorobenzene	1.19	1.16	0.1	-2.9	30
2-Methylnaphthalene	1.90	1.83	0.1	35.5 +	30

Note: If compound calibration is linear or quadratic, the the %D is based on result concentration.

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 7 - Form VII A VOA

Volatile Organics Continuing Calibration Data

Sample No.: B24G062-ICV1 **Sample Name:** LCSD/Second Source Verification/CALV

Analysis: TO-17 (Passive) **Calibration:** BG40008 **Calibration Start Date:** 07/09/2024 12:15

Sequence: B24G062 **Instrument:** S System **Lab File ID:** S24070924.D **Calibration End Date:** 07/09/2024 23:06

+ values are outside method/contract required QC limits

Compound	Mean RRF	RRF	Min_RF	%D	%D Limit
Vinyl Chloride	0.25	0.29	0.1	18.0	30
1,1-Dichloroethene	0.23	0.23	0.1	0.3	30
Methylene Chloride	0.28	0.30	0.1	8.4	30
1,1,2-Trichlorotrifluoroethane (Fr.113)	0.27	0.29	0.1	8.7	30
trans-1,2-Dichloroethene	0.40	0.43	0.1	6.2	30
Methyl-t-butyl ether	0.81	0.78	0.1	-3.4	30
1,1-Dichloroethane	0.50	0.54	0.2	7.1	30
cis-1,2-Dichloroethene	0.27	0.28	0.1	3.2	30
Chloroform	0.52	0.53	0.2	2.7	30
1,2-DCA-d4	0.37	0.36	0.1	-1.6	30
1,2-Dichloroethane	0.45	0.47	0.1	4.7	30
1,1,1-Trichloroethane	0.43	0.44	0.1	4.0	30
Carbon Tetrachloride	0.35	0.36	0.1	1.5	30
Benzene	0.28	0.28	0.5	1.9	30
Trichloroethene	0.30	0.29	0.2	-1.6	30
1,4-Dioxane	0.21	0.19	0.1	-10.8	30
1,1,2-Trichloroethane	0.17	0.15	0.1	-7.7	30
Toluene-d8	1.34	1.42	0.4	6.6	30
Toluene	0.94	1.00	0.4	6.3	30
1,2-Dibromoethane (EDB)	0.38	0.39	0.1	4.8	30
Tetrachloroethene	0.34	0.40	0.2	18.2	30
1,1,1,2-Tetrachloroethane	0.32	0.31	0.1	-4.6	30
Chlorobenzene	1.06	1.05	0.5	-1.6	30
Ethylbenzene	0.53	0.51	0.1	-4.7	30
p & m-Xylene	0.66	0.63	0.1	-4.0	30
o-Xylene	0.62	0.62	0.3	-1.1	30
1,2,3-Trichloropropane	0.62	0.60	0.1	-2.8	30
Isopropylbenzene	1.69	1.62	0.1	-4.1	30
Bromofluorobenzene	0.41	0.36	0.1	-12.9	30
1,3,5-Trimethylbenzene	1.34	1.51	0.1	13.4	30
1,2,4-Trimethylbenzene	1.26	1.44	0.1	14.7	30
1,3-Dichlorobenzene	1.52	1.75	0.6	15.2	30
1,4-Dichlorobenzene	1.63	1.77	0.5	8.5	30
1,2-Dichlorobenzene	1.64	1.82	0.4	11.6	30
1,2,4-Trichlorobenzene	1.15	1.27	0.2	10.9	30
Naphthalene	3.48	3.79	0.1	8.9	30
1,2,3-Trichlorobenzene	1.19	1.32	0.1	10.4	30
2-Methylnaphthalene	1.90	1.80	0.1	-5.0	30

Note: If compound calibration is linear or quadratic, the the %D is based on result concentration.

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 7 - Form VII A VOA

Volatile Organics Continuing Calibration Data

Sample No.: 24I0002-BS1 **Sample Name:** LCS, Calibration Source Verification

Analysis: TO-17 (Passive) **Calibration:** BG40008 **Calibration Start Date:** 07/09/2024 12:15

Sequence: B24I002 **Instrument:** S System **Lab File ID:** S24090305.D **Calibration End Date:** 07/09/2024 23:06

+ values are outside method/contract required QC limits

Compound	Mean RRF	RRF	Min_RF	%D	%D Limit
Vinyl Chloride	0.25	0.30	0.1	22.4	30
1,1-Dichloroethene	0.23	0.24	0.1	2.0	30
Methylene Chloride	0.28	0.30	0.1	7.7	30
1,1,2-Trichlorotrifluoroethane (Fr.113)	0.27	0.30	0.1	11.0	30
trans-1,2-Dichloroethene	0.40	0.44	0.1	9.7	30
Methyl-t-butyl ether	0.81	0.82	0.1	1.2	30
1,1-Dichloroethane	0.50	0.56	0.2	12.0	30
cis-1,2-Dichloroethene	0.27	0.30	0.1	11.4	30
Chloroform	0.52	0.59	0.2	13.2	30
1,2-DCA-d4	0.37	0.41	0.1	12.4	30
1,2-Dichloroethane	0.45	0.52	0.1	15.4	30
1,1,1-Trichloroethane	0.43	0.53	0.1	23.3	30
Carbon Tetrachloride	0.35	0.48	0.1	37.1 +	30
Benzene	0.28	0.28	0.5	2.4	30
Trichloroethene	0.30	0.29	0.2	-1.8	30
1,4-Dioxane	0.21	0.21	0.1	-2.2	30
1,1,2-Trichloroethane	0.17	0.18	0.1	7.0	30
Toluene-d8	1.34	1.34	0.4	0.3	30
Toluene	0.94	0.90	0.4	-4.3	30
1,2-Dibromoethane (EDB)	0.38	0.43	0.1	13.1	30
Tetrachloroethene	0.34	0.35	0.2	2.9	30
1,1,1,2-Tetrachloroethane	0.32	0.41	0.1	29.0	30
Chlorobenzene	1.06	1.05	0.5	-1.3	30
Ethylbenzene	0.53	0.49	0.1	-7.7	30
p & m-Xylene	0.66	0.59	0.1	-10.2	30
o-Xylene	0.62	0.58	0.3	-6.8	30
1,2,3-Trichloropropane	0.62	0.69	0.1	10.5	30
Isopropylbenzene	1.69	1.60	0.1	-5.7	30
Bromofluorobenzene	0.41	0.35	0.1	-13.9	30
1,3,5-Trimethylbenzene	1.34	1.25	0.1	-6.4	30
1,2,4-Trimethylbenzene	1.26	1.23	0.1	-2.2	30
1,3-Dichlorobenzene	1.52	1.54	0.6	1.8	30
1,4-Dichlorobenzene	1.63	1.53	0.5	-5.8	30
1,2-Dichlorobenzene	1.64	1.63	0.4	-0.2	30
1,2,4-Trichlorobenzene	1.15	1.06	0.2	-7.6	30
Naphthalene	3.48	3.19	0.1	-8.1	30
1,2,3-Trichlorobenzene	1.19	1.11	0.1	-7.0	30
2-Methylnaphthalene	1.90	1.61	0.1	-14.9	30

Note: If compound calibration is linear or quadratic, the the %D is based on result concentration.

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 7 - Form VII A VOA

Volatile Organics Continuing Calibration Data

Sample No.: B24I002-ICV1 **Sample Name:** LCSD/Second Source Verification/CALV

Analysis: TO-17 (Passive) **Calibration:** BG40008 **Calibration Start Date:** 07/09/2024 13:16

Sequence: B24I002 **Instrument:** S System **Lab File ID:** S24090306.D **Calibration End Date:** 07/09/2024 23:06

+ values are outside method/contract required QC limits

Compound	Mean RRF	RRF	Min_RF	%D	%D Limit
Vinyl Chloride	0.25	0.25	0.1	0.6	30
1,1-Dichloroethene	0.23	0.23	0.1	-2.2	30
Methylene Chloride	0.28	0.30	0.1	7.3	30
1,1,2-Trichlorotrifluoroethane (Fr.113)	0.27	0.29	0.1	8.1	30
trans-1,2-Dichloroethene	0.40	0.44	0.1	10.3	30
Methyl-t-butyl ether	0.81	0.79	0.1	-2.8	30
1,1-Dichloroethane	0.50	0.57	0.2	13.6	30
cis-1,2-Dichloroethene	0.27	0.31	0.1	14.0	30
Chloroform	0.52	0.60	0.2	15.7	30
1,2-DCA-d4	0.37	0.40	0.1	9.9	30
1,2-Dichloroethane	0.45	0.53	0.1	18.0	30
1,1,1-Trichloroethane	0.43	0.52	0.1	22.8	30
Carbon Tetrachloride	0.35	0.49	0.1	39.1 +	30
Benzene	0.28	0.29	0.5	4.4	30
Trichloroethene	0.30	0.30	0.2	0.5	30
1,4-Dioxane	0.21	0.19	0.1	-8.4	30
1,1,2-Trichloroethane	0.17	0.18	0.1	9.6	30
Toluene-d8	1.34	1.33	0.4	-0.7	30
Toluene	0.94	0.95	0.4	0.4	30
1,2-Dibromoethane (EDB)	0.38	0.44	0.1	17.1	30
Tetrachloroethene	0.34	0.37	0.2	7.9	30
1,1,1,2-Tetrachloroethane	0.32	0.42	0.1	30.6 +	30
Chlorobenzene	1.06	1.06	0.5	-0.3	30
Ethylbenzene	0.53	0.51	0.1	-4.8	30
p & m-Xylene	0.66	0.60	0.1	-8.8	30
o-Xylene	0.62	0.59	0.3	-5.6	30
1,2,3-Trichloropropane	0.62	0.67	0.1	7.9	30
Isopropylbenzene	1.69	1.61	0.1	-5.0	30
Bromofluorobenzene	0.41	0.33	0.1	-19.6	30
1,3,5-Trimethylbenzene	1.34	1.34	0.1	0.1	30
1,2,4-Trimethylbenzene	1.26	1.29	0.1	2.6	30
1,3-Dichlorobenzene	1.52	1.58	0.6	4.3	30
1,4-Dichlorobenzene	1.63	1.59	0.5	-2.2	30
1,2-Dichlorobenzene	1.64	1.67	0.4	1.8	30
1,2,4-Trichlorobenzene	1.15	1.08	0.2	-6.2	30
Naphthalene	3.48	3.26	0.1	-6.3	30
1,2,3-Trichlorobenzene	1.19	1.13	0.1	-5.1	30
2-Methylnaphthalene	1.90	1.59	0.1	-16.2	30

Note: If compound calibration is linear or quadratic, the the %D is based on result concentration.

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 7 - Form VII A VOA

Volatile Organics Continuing Calibration Data

Sample No.: B24I002-CCV1 **Sample Name:** LCS, Closing Calibration Verification

Analysis: TO-17 (Passive) **Calibration:** BG40008 **Calibration Start Date:** 07/09/2024 13:16

Sequence: B24I002 **Instrument:** S System **Lab File ID:** S24090316.D **Calibration End Date:** 07/09/2024 23:06

+ values are outside method/contract required QC limits

Compound	Mean RRF	RRF	Min_RF	%D	%D Limit
Vinyl Chloride	0.25	0.25	0.1	1.9	30
1,1-Dichloroethene	0.23	0.22	0.1	-4.1	30
Methylene Chloride	0.28	0.30	0.1	9.2	30
1,1,2-Trichlorotrifluoroethane (Fr.113)	0.27	0.30	0.1	13.1	30
trans-1,2-Dichloroethene	0.40	0.45	0.1	12.3	30
Methyl-t-butyl ether	0.81	0.81	0.1	-0.2	30
1,1-Dichloroethane	0.50	0.57	0.2	14.7	30
cis-1,2-Dichloroethene	0.27	0.31	0.1	13.3	30
Chloroform	0.52	0.61	0.2	17.2	30
1,2-DCA-d4	0.37	0.43	0.1	18.4	30
1,2-Dichloroethane	0.45	0.54	0.1	19.9	30
1,1,1-Trichloroethane	0.43	0.52	0.1	21.7	30
Carbon Tetrachloride	0.35	0.47	0.1	34.5 +	30
Benzene	0.28	0.28	0.5	1.3	30
Trichloroethene	0.30	0.29	0.2	-3.6	30
1,4-Dioxane	0.21	0.20	0.1	-5.8	30
1,1,2-Trichloroethane	0.17	0.18	0.1	10.3	30
Toluene-d8	1.34	1.35	0.4	1.1	30
Toluene	0.94	0.90	0.4	-4.4	30
1,2-Dibromoethane (EDB)	0.38	0.43	0.1	13.5	30
Tetrachloroethene	0.34	0.36	0.2	5.0	30
1,1,1,2-Tetrachloroethane	0.32	0.41	0.1	27.8	30
Chlorobenzene	1.06	1.04	0.5	-2.2	30
Ethylbenzene	0.53	0.46	0.1	-13.2	30
p & m-Xylene	0.66	0.56	0.1	-14.7	30
o-Xylene	0.62	0.55	0.3	-11.5	30
1,2,3-Trichloropropane	0.62	0.72	0.1	16.6	30
Isopropylbenzene	1.69	1.49	0.1	-11.9	30
Bromofluorobenzene	0.41	0.33	0.1	-19.5	30
1,3,5-Trimethylbenzene	1.34	1.18	0.1	-11.6	30
1,2,4-Trimethylbenzene	1.26	1.14	0.1	-9.1	30
1,3-Dichlorobenzene	1.52	1.57	0.6	3.2	30
1,4-Dichlorobenzene	1.63	1.57	0.5	-3.4	30
1,2-Dichlorobenzene	1.64	1.60	0.4	-2.3	30
1,2,4-Trichlorobenzene	1.15	1.01	0.2	-12.1	30
Naphthalene	3.48	2.84	0.1	-18.3	30
1,2,3-Trichlorobenzene	1.19	1.04	0.1	-12.7	30
2-Methylnaphthalene	1.90	1.37	0.1	-28.0	30

Note: If compound calibration is linear or quadratic, the the %D is based on result concentration.

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 8 - Form VIII A VOA

Volatile Internal Standard Area and Retention Time Summary

Sequence: B24G062 **Instrument:** S System **Calibration:** BG40008

Matrix: Air **Calibration Date:** 07/09/2024

+ values are outside method/contract required QC limits

Initial Calibration Reference Values						
Reference Value (RV) File ID: S24070906.D	**Fluorobenzene**		**Chlorobenzene-d5**		**1,4-Dichlorobenzene-d4**	
	Response	**RT**	**Response**	**RT**	**Response**	**RT**
Reference Value	243055	3.99	170073	6.46	83991	8.14
Upper Limit	340277	4.11	238102	6.58	117587	8.26
Lower Limit	145833	3.87	102044	6.34	50395	8.02

			Fluorobenzene		**Chlorobenzene-d5**		**1,4-Dichlorobenzene-d4**	
	RV	**FileID**	**Response**	**RT**	**Response**	**RT**	**Response**	**RT**
B24G062-CAL1		S24070902.D	234073	3.98	156996	6.46	54813	8.14
B24G062-CAL2		S24070903.D	240997	3.99	164278	6.46	64233	8.14
B24G062-CAL3		S24070904.D	236631	3.99	162000	6.46	69102	8.14
B24G062-CAL4		S24070905.D	247790	3.99	174328	6.46	81969	8.14
B24G062-CAL5	RV	S24070906.D	243055	3.99	170073	6.46	83991	8.14
B24G062-CAL6		S24070907.D	235366	3.99	163589	6.46	84037	8.14
B24G062-CAL7		S24070908.D	247921	3.98	174901	6.46	94177	8.14
B24G062-CAL8		S24070909.D	223295	3.99	160956	6.46	86194	8.14
B24G062-CAL9		S24070918.D	216854	3.98	151823	6.46	80456	8.14
B24G062-CALA		S24070919.D	219684	3.99	155617	6.46	73291	8.14
B24G062-CALB		S24070920.D	215701	3.99	153768	6.46	77372	8.14
B24G062-CALC		S24070921.D	215280	3.99	166353	6.46	81403	8.14
B24G062-ICV1		S24070924.D	217802	3.99	132138	6.46	52318	8.14
B24G062-ICB1		S24070925.D	222879	3.99	156056	6.46	53000	8.14

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Table 8 - Form VIII A VOA

Volatile Internal Standard Area and Retention Time Summary

Sequence: B24I002 **Instrument:** S System **Calibration:** BG40008

Matrix: Air **Calibration Date:** 07/09/2024

+ values are outside method/contract required QC limits

Initial Calibration Reference Values						
Reference Value (RV) File ID: S24070906.D	**Fluorobenzene**		**Chlorobenzene-d5**		**1,4-Dichlorobenzene-d4**	
	Response	**RT**	**Response**	**RT**	**Response**	**RT**
Reference Value	243055	3.99	170073	6.46	83991	8.14
Upper Limit	340277	4.11	238102	6.58	117587	8.26
Lower Limit	145833	3.87	102044	6.34	50395	8.02

		Fluorobenzene		**Chlorobenzene-d5**		**1,4-Dichlorobenzene-d4**	
RV	**FileID**	**Response**	**RT**	**Response**	**RT**	**Response**	**RT**
24I0002-BLK1	S24090302.D	247092	3.98	161953	6.46	59624	8.14
24I0002-BS1	S24090305.D	264356	3.98	180231	6.46	86605	8.14
B24I002-ICV1	S24090306.D	269965	3.98	182053	6.46	82496	8.14
0007984-01	S24090307.D	241640	3.98	182657	6.46	74204	8.14
0007984-02	S24090308.D	198173	3.98	154899	6.46	77294	8.14
0007984-03	S24090309.D	195651	3.98	151324	6.46	64620	8.14
0007984-04	S24090310.D	213715	3.98	160998	6.46	69644	8.14
0007984-05	S24090311.D	233272	3.98	171299	6.46	71882	8.14
0007984-06	S24090312.D	213665	3.98	165704	6.46	79340	8.14
0007984-07	S24090313.D	202515	3.98	157675	6.46	74905	8.14
B24I002-CCB1	S24090315.D	235846	3.98	152969	6.46	54513	8.14
B24I002-CCV1	S24090316.D	236233	3.98	158699	6.46	75068	8.14

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Additional QC Information

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

TO-17 (Passive) Holding Time Report

Analysis: TO-17 (Passive)- Concentration

SampleName	Sampled	Received	Prepared	Days to Prep	Analyzed	Days to Analysis	Expiration Date	Qualifier
Trip 1	08/27/2024 00:00	08/30/2024 11:35	09/03/2024 16:09	7.67	09/03/2024 16:09	7.67	09/27/2024	
TWA-PSV-01	08/27/2024 15:10	08/30/2024 11:35	09/03/2024 16:44	7.07	09/03/2024 16:44	7.07	09/27/2024	
TWA-PSV-02	08/27/2024 16:00	08/30/2024 11:35	09/03/2024 17:18	7.05	09/03/2024 17:18	7.05	09/27/2024	
TWA-PSV-03	08/27/2024 16:25	08/30/2024 11:35	09/03/2024 17:54	7.06	09/03/2024 17:54	7.06	09/27/2024	
TWA-PSV-04	08/27/2024 16:50	08/30/2024 11:35	09/03/2024 18:29	7.07	09/03/2024 18:29	7.07	09/27/2024	
TWA-PSV-05	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:04	7.09	09/03/2024 19:04	7.09	09/27/2024	
TWA-PSV-05-DUP	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:38	7.11	09/03/2024 19:38	7.11	09/27/2024	

Analysis: TO-17 (Passive)- Concentration

SampleName	Sampled	Received	Prepared	Days to Prep	Analyzed	Days to Analysis	Expiration Date	Qualifier
Trip 1	08/27/2024 00:00	08/30/2024 11:35	09/03/2024 16:09	7.67	09/03/2024 16:09	7.67	09/27/2024	
TWA-PSV-01	08/27/2024 15:10	08/30/2024 11:35	09/03/2024 16:44	7.07	09/03/2024 16:44	7.07	09/27/2024	
TWA-PSV-02	08/27/2024 16:00	08/30/2024 11:35	09/03/2024 17:18	7.05	09/03/2024 17:18	7.05	09/27/2024	
TWA-PSV-03	08/27/2024 16:25	08/30/2024 11:35	09/03/2024 17:54	7.06	09/03/2024 17:54	7.06	09/27/2024	
TWA-PSV-04	08/27/2024 16:50	08/30/2024 11:35	09/03/2024 18:29	7.07	09/03/2024 18:29	7.07	09/27/2024	
TWA-PSV-05	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:04	7.09	09/03/2024 19:04	7.09	09/27/2024	
TWA-PSV-05-DUP	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:38	7.11	09/03/2024 19:38	7.11	09/27/2024	

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

TO-17 (Passive) Holding Time Report

Analysis: TO-17 (Passive)- Concentration

SampleName	Sampled	Received	Prepared	Days to Prep	Analyzed	Days to Analysis	Expiration Date	Qualifier
Trip 1	08/27/2024 00:00	08/30/2024 11:35	09/03/2024 16:09	7.67	09/03/2024 16:09	7.67	09/27/2024	
TWA-PSV-01	08/27/2024 15:10	08/30/2024 11:35	09/03/2024 16:44	7.07	09/03/2024 16:44	7.07	09/27/2024	
TWA-PSV-02	08/27/2024 16:00	08/30/2024 11:35	09/03/2024 17:18	7.05	09/03/2024 17:18	7.05	09/27/2024	
TWA-PSV-03	08/27/2024 16:25	08/30/2024 11:35	09/03/2024 17:54	7.06	09/03/2024 17:54	7.06	09/27/2024	
TWA-PSV-04	08/27/2024 16:50	08/30/2024 11:35	09/03/2024 18:29	7.07	09/03/2024 18:29	7.07	09/27/2024	
TWA-PSV-05	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:04	7.09	09/03/2024 19:04	7.09	09/27/2024	
TWA-PSV-05-DUP	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:38	7.11	09/03/2024 19:38	7.11	09/27/2024	

Analysis: TO-17 (Passive)- Concentration

SampleName	Sampled	Received	Prepared	Days to Prep	Analyzed	Days to Analysis	Expiration Date	Qualifier
Trip 1	08/27/2024 00:00	08/30/2024 11:35	09/03/2024 16:09	7.67	09/03/2024 16:09	7.67	09/27/2024	
TWA-PSV-01	08/27/2024 15:10	08/30/2024 11:35	09/03/2024 16:44	7.07	09/03/2024 16:44	7.07	09/27/2024	
TWA-PSV-02	08/27/2024 16:00	08/30/2024 11:35	09/03/2024 17:18	7.05	09/03/2024 17:18	7.05	09/27/2024	
TWA-PSV-03	08/27/2024 16:25	08/30/2024 11:35	09/03/2024 17:54	7.06	09/03/2024 17:54	7.06	09/27/2024	
TWA-PSV-04	08/27/2024 16:50	08/30/2024 11:35	09/03/2024 18:29	7.07	09/03/2024 18:29	7.07	09/27/2024	
TWA-PSV-05	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:04	7.09	09/03/2024 19:04	7.09	09/27/2024	
TWA-PSV-05-DUP	08/27/2024 17:00	08/30/2024 11:35	09/03/2024 19:38	7.11	09/03/2024 19:38	7.11	09/27/2024	

H = Sample analysis exceeded holding time.

BEACON ENVIRONMENTAL

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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Preparation and Analysis Summary Table

Batch	Sequence	Instrument	FileID	Analyzed Date/Time	Dilution	
Lab ID: 0007984-01	**Method:** TO-17 (Passive)		**Sample:** Trip 1			**Matrix:** Air
24I0002	B24I002	S System	S24090307.D			
Lab ID: 0007984-02	**Method:** TO-17 (Passive)		**Sample:** TWA-PSV-01			**Matrix:** Air
24I0002	B24I002	S System	S24090308.D	9/3/24 16:44	1.00	TO-17 (Passive)
Lab ID: 0007984-03	**Method:** TO-17 (Passive)		**Sample:** TWA-PSV-02			**Matrix:** Air
24I0002	B24I002	S System	S24090309.D	9/3/24 17:18	1.00	TO-17 (Passive)
Lab ID: 0007984-04	**Method:** TO-17 (Passive)		**Sample:** TWA-PSV-03			**Matrix:** Air
24I0002	B24I002	S System	S24090310.D			
Lab ID: 0007984-05	**Method:** TO-17 (Passive)		**Sample:** TWA-PSV-04			**Matrix:** Air
24I0002	B24I002	S System	S24090311.D	9/3/24 18:29	1.00	TO-17 (Passive)
Lab ID: 0007984-06	**Method:** TO-17 (Passive)		**Sample:** TWA-PSV-05			**Matrix:** Air
24I0002	B24I002	S System	S24090312.D	9/3/24 19:04	1.00	TO-17 (Passive)
Lab ID: 0007984-07	**Method:** TO-17 (Passive)		**Sample:** TWA-PSV-05-DUP			**Matrix:** Air
24I0002	B24I002	S System	S24090313.D			

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Lab ID: 0007984-01 **Sample Name:** Trip 1

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Vinyl Chloride	20,160	1.00	0.810	U	U	S24090307.D
1,1-Dichloroethene	20,160	1.00	0.330	U	U	S24090307.D
Methylene Chloride	20,160	1.00	0.350 g	U	U	S24090307.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	U	U	S24090307.D
trans-1,2-Dichloroethene	20,160	1.00	0.440	U	U	S24090307.D
Methyl-t-butyl ether	20,160	1.00	0.500 g	U	U	S24090307.D
1,1-Dichloroethane	20,160	1.00	0.850	U	U	S24090307.D
cis-1,2-Dichloroethene	20,160	1.00	0.530	U	U	S24090307.D
Chloroform	20,160	1.00	0.350 g	U	U	S24090307.D
1,2-Dichloroethane	20,160	1.00	0.560	U	U	S24090307.D
1,1,1-Trichloroethane	20,160	1.00	1.050	U	U	S24090307.D
Carbon Tetrachloride	20,160	1.00	0.430 g	U	U	S24090307.D
Benzene	20,160	1.00	0.530	U	U	S24090307.D
Trichloroethene	20,160	1.00	0.330	U	U	S24090307.D
1,4-Dioxane	20,160	1.00	0.410 g	U	U	S24090307.D
1,1,2-Trichloroethane	20,160	1.00	0.330 g	U	U	S24090307.D
Toluene	20,160	1.00	0.400	U	U	S24090307.D
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	U	U	S24090307.D
Tetrachloroethene	20,160	1.00	0.410	U	U	S24090307.D
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	U	U	S24090307.D
Chlorobenzene	20,160	1.00	0.850 g	U	U	S24090307.D
Ethylbenzene	20,160	1.00	0.850	U	U	S24090307.D
p & m-Xylene	20,160	1.00	0.880	U	U	S24090307.D
o-Xylene	20,160	1.00	0.880	U	U	S24090307.D
1,2,3-Trichloropropane	20,160	1.00	0.750 g	U	U	S24090307.D
Isopropylbenzene	20,160	1.00	0.830 g	U	U	S24090307.D
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090307.D
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090307.D
1,3-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090307.D
1,4-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090307.D
1,2-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090307.D
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090307.D
Naphthalene	20,160	1.00	0.800 g	U	U	S24090307.D
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090307.D
2-Methylnaphthalene	20,160	1.00	0.760 g	U	U	S24090307.D

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Lab ID: 0007984-02 **Sample Name:** TWA-PSV-01

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Vinyl Chloride	20,160	1.00	0.810	U	U	S24090308.D
1,1-Dichloroethene	20,160	1.00	0.330	U	U	S24090308.D
Methylene Chloride	20,160	1.00	0.350 g	U	U	S24090308.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	U	U	S24090308.D
trans-1,2-Dichloroethene	20,160	1.00	0.440	U	U	S24090308.D
Methyl-t-butyl ether	20,160	1.00	0.500 g	U	U	S24090308.D
1,1-Dichloroethane	20,160	1.00	0.850	U	U	S24090308.D
cis-1,2-Dichloroethene	20,160	1.00	0.530	U	U	S24090308.D
Chloroform	20,160	1.00	0.350 g	U	U	S24090308.D
1,2-Dichloroethane	20,160	1.00	0.560	U	U	S24090308.D
1,1,1-Trichloroethane	20,160	1.00	1.050	U	U	S24090308.D
Carbon Tetrachloride	20,160	1.00	0.430 g	U	U	S24090308.D
Benzene	20,160	1.00	0.530	U	U	S24090308.D
Trichloroethene	20,160	1.00	0.330	U	U	S24090308.D
1,4-Dioxane	20,160	1.00	0.410 g	U	U	S24090308.D
1,1,2-Trichloroethane	20,160	1.00	0.330 g	U	U	S24090308.D
Toluene	20,160	1.00	0.400	U	U	S24090308.D
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	U	U	S24090308.D
Tetrachloroethene	20,160	1.00	0.410	U	U	S24090308.D
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	U	U	S24090308.D
Chlorobenzene	20,160	1.00	0.850 g	U	U	S24090308.D
Ethylbenzene	20,160	1.00	0.850	U	U	S24090308.D
p & m-Xylene	20,160	1.00	0.880	U	U	S24090308.D
o-Xylene	20,160	1.00	0.880	U	U	S24090308.D
1,2,3-Trichloropropane	20,160	1.00	0.750 g	U	U	S24090308.D
Isopropylbenzene	20,160	1.00	0.830 g	U	U	S24090308.D
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090308.D
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090308.D
1,3-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090308.D
1,4-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090308.D
1,2-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090308.D
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090308.D
Naphthalene	20,160	1.00	0.800 g	U	U	S24090308.D
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090308.D
2-Methylnaphthalene	20,160	1.00	0.760 g	U	U	S24090308.D

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Lab ID: 0007984-03 **Sample Name:** TWA-PSV-02

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Vinyl Chloride	20,160	1.00	0.810	U	U	S24090309.D
1,1-Dichloroethene	20,160	1.00	0.330	U	U	S24090309.D
Methylene Chloride	20,160	1.00	0.350 g	U	U	S24090309.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	U	U	S24090309.D
trans-1,2-Dichloroethene	20,160	1.00	0.440	U	U	S24090309.D
Methyl-t-butyl ether	20,160	1.00	0.500 g	U	U	S24090309.D
1,1-Dichloroethane	20,160	1.00	0.850	U	U	S24090309.D
cis-1,2-Dichloroethene	20,160	1.00	0.530	U	U	S24090309.D
Chloroform	20,160	1.00	0.350 g	U	U	S24090309.D
1,2-Dichloroethane	20,160	1.00	0.560	U	U	S24090309.D
1,1,1-Trichloroethane	20,160	1.00	1.050	U	U	S24090309.D
Carbon Tetrachloride	20,160	1.00	0.430 g	U	U	S24090309.D
Benzene	20,160	1.00	0.530	U	U	S24090309.D
Trichloroethene	20,160	1.00	0.330	U	U	S24090309.D
1,4-Dioxane	20,160	1.00	0.410 g	U	U	S24090309.D
1,1,2-Trichloroethane	20,160	1.00	0.330 g	U	U	S24090309.D
Toluene	20,160	1.00	0.400	68.07	8.44	S24090309.D
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	U	U	S24090309.D
Tetrachloroethene	20,160	1.00	0.410	25.64	3.10	S24090309.D
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	U	U	S24090309.D
Chlorobenzene	20,160	1.00	0.850 g	U	U	S24090309.D
Ethylbenzene	20,160	1.00	0.850	U	U	S24090309.D
p & m-Xylene	20,160	1.00	0.880	U	U	S24090309.D
o-Xylene	20,160	1.00	0.880	U	U	S24090309.D
1,2,3-Trichloropropane	20,160	1.00	0.750 g	U	U	S24090309.D
Isopropylbenzene	20,160	1.00	0.830 g	U	U	S24090309.D
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090309.D
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090309.D
1,3-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090309.D
1,4-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090309.D
1,2-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090309.D
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090309.D
Naphthalene	20,160	1.00	0.800 g	U	U	S24090309.D
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090309.D
2-Methylnaphthalene	20,160	1.00	0.760 g	U	U	S24090309.D

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Lab ID: 0007984-04 **Sample Name:** TWA-PSV-03

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Vinyl Chloride	20,160	1.00	0.810	U	U	S24090310.D
1,1-Dichloroethene	20,160	1.00	0.330	U	U	S24090310.D
Methylene Chloride	20,160	1.00	0.350 g	U	U	S24090310.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	U	U	S24090310.D
trans-1,2-Dichloroethene	20,160	1.00	0.440	U	U	S24090310.D
Methyl-t-butyl ether	20,160	1.00	0.500 g	U	U	S24090310.D
1,1-Dichloroethane	20,160	1.00	0.850	U	U	S24090310.D
cis-1,2-Dichloroethene	20,160	1.00	0.530	U	U	S24090310.D
Chloroform	20,160	1.00	0.350 g	U	U	S24090310.D
1,2-Dichloroethane	20,160	1.00	0.560	U	U	S24090310.D
1,1,1-Trichloroethane	20,160	1.00	1.050	U	U	S24090310.D
Carbon Tetrachloride	20,160	1.00	0.430 g	U	U	S24090310.D
Benzene	20,160	1.00	0.530	U	U	S24090310.D
Trichloroethene	20,160	1.00	0.330	U	U	S24090310.D
1,4-Dioxane	20,160	1.00	0.410 g	U	U	S24090310.D
1,1,2-Trichloroethane	20,160	1.00	0.330 g	U	U	S24090310.D
Toluene	20,160	1.00	0.400	U	U	S24090310.D
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	U	U	S24090310.D
Tetrachloroethene	20,160	1.00	0.410	U	U	S24090310.D
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	U	U	S24090310.D
Chlorobenzene	20,160	1.00	0.850 g	U	U	S24090310.D
Ethylbenzene	20,160	1.00	0.850	U	U	S24090310.D
p & m-Xylene	20,160	1.00	0.880	U	U	S24090310.D
o-Xylene	20,160	1.00	0.880	U	U	S24090310.D
1,2,3-Trichloropropane	20,160	1.00	0.750 g	U	U	S24090310.D
Isopropylbenzene	20,160	1.00	0.830 g	U	U	S24090310.D
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090310.D
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090310.D
1,3-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090310.D
1,4-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090310.D
1,2-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090310.D
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090310.D
Naphthalene	20,160	1.00	0.800 g	U	U	S24090310.D
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090310.D
2-Methylnaphthalene	20,160	1.00	0.760 g	U	U	S24090310.D

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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Lab ID: 0007984-05 **Sample Name:** TWA-PSV-04

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Vinyl Chloride	20,160	1.00	0.810	U	U	S24090311.D
1,1-Dichloroethene	20,160	1.00	0.330	U	U	S24090311.D
Methylene Chloride	20,160	1.00	0.350 g	U	U	S24090311.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	U	U	S24090311.D
trans-1,2-Dichloroethene	20,160	1.00	0.440	U	U	S24090311.D
Methyl-t-butyl ether	20,160	1.00	0.500 g	U	U	S24090311.D
1,1-Dichloroethane	20,160	1.00	0.850	U	U	S24090311.D
cis-1,2-Dichloroethene	20,160	1.00	0.530	U	U	S24090311.D
Chloroform	20,160	1.00	0.350 g	U	U	S24090311.D
1,2-Dichloroethane	20,160	1.00	0.560	U	U	S24090311.D
1,1,1-Trichloroethane	20,160	1.00	1.050	U	U	S24090311.D
Carbon Tetrachloride	20,160	1.00	0.430 g	U	U	S24090311.D
Benzene	20,160	1.00	0.530	U	U	S24090311.D
Trichloroethene	20,160	1.00	0.330	U	U	S24090311.D
1,4-Dioxane	20,160	1.00	0.410 g	U	U	S24090311.D
1,1,2-Trichloroethane	20,160	1.00	0.330 g	U	U	S24090311.D
Toluene	20,160	1.00	0.400	U	U	S24090311.D
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	U	U	S24090311.D
Tetrachloroethene	20,160	1.00	0.410	U	U	S24090311.D
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	U	U	S24090311.D
Chlorobenzene	20,160	1.00	0.850 g	U	U	S24090311.D
Ethylbenzene	20,160	1.00	0.850	U	U	S24090311.D
p & m-Xylene	20,160	1.00	0.880	U	U	S24090311.D
o-Xylene	20,160	1.00	0.880	U	U	S24090311.D
1,2,3-Trichloropropane	20,160	1.00	0.750 g	U	U	S24090311.D
Isopropylbenzene	20,160	1.00	0.830 g	U	U	S24090311.D
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090311.D
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090311.D
1,3-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090311.D
1,4-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090311.D
1,2-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090311.D
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090311.D
Naphthalene	20,160	1.00	0.800 g	U	U	S24090311.D
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090311.D
2-Methylnaphthalene	20,160	1.00	0.760 g	U	U	S24090311.D

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Lab ID: 0007984-06 **Sample Name:** TWA-PSV-05

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Vinyl Chloride	20,160	1.00	0.810	U	U	S24090312.D
1,1-Dichloroethene	20,160	1.00	0.330	U	U	S24090312.D
Methylene Chloride	20,160	1.00	0.350 g	U	U	S24090312.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	U	U	S24090312.D
trans-1,2-Dichloroethene	20,160	1.00	0.440	U	U	S24090312.D
Methyl-t-butyl ether	20,160	1.00	0.500 g	U	U	S24090312.D
1,1-Dichloroethane	20,160	1.00	0.850	U	U	S24090312.D
cis-1,2-Dichloroethene	20,160	1.00	0.530	U	U	S24090312.D
Chloroform	20,160	1.00	0.350 g	U	U	S24090312.D
1,2-Dichloroethane	20,160	1.00	0.560	U	U	S24090312.D
1,1,1-Trichloroethane	20,160	1.00	1.050	U	U	S24090312.D
Carbon Tetrachloride	20,160	1.00	0.430 g	U	U	S24090312.D
Benzene	20,160	1.00	0.530	U	U	S24090312.D
Trichloroethene	20,160	1.00	0.330	U	U	S24090312.D
1,4-Dioxane	20,160	1.00	0.410 g	U	U	S24090312.D
1,1,2-Trichloroethane	20,160	1.00	0.330 g	U	U	S24090312.D
Toluene	20,160	1.00	0.400	U	U	S24090312.D
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	U	U	S24090312.D
Tetrachloroethene	20,160	1.00	0.410	U	U	S24090312.D
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	U	U	S24090312.D
Chlorobenzene	20,160	1.00	0.850 g	U	U	S24090312.D
Ethylbenzene	20,160	1.00	0.850	U	U	S24090312.D
p & m-Xylene	20,160	1.00	0.880	U	U	S24090312.D
o-Xylene	20,160	1.00	0.880	U	U	S24090312.D
1,2,3-Trichloropropane	20,160	1.00	0.750 g	U	U	S24090312.D
Isopropylbenzene	20,160	1.00	0.830 g	U	U	S24090312.D
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090312.D
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090312.D
1,3-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090312.D
1,4-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090312.D
1,2-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090312.D
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090312.D
Naphthalene	20,160	1.00	0.800 g	U	U	S24090312.D
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090312.D
2-Methylnaphthalene	20,160	1.00	0.760 g	U	U	S24090312.D

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Result Calculation Summary (Concentration)

TO-17 (Passive)

Lab ID: 0007984-07 **Sample Name:** TWA-PSV-05-DUP

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
Vinyl Chloride	20,160	1.00	0.810	U	U	S24090313.D
1,1-Dichloroethene	20,160	1.00	0.330	U	U	S24090313.D
Methylene Chloride	20,160	1.00	0.350 g	U	U	S24090313.D
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	U	U	S24090313.D
trans-1,2-Dichloroethene	20,160	1.00	0.440	U	U	S24090313.D
Methyl-t-butyl ether	20,160	1.00	0.500 g	U	U	S24090313.D
1,1-Dichloroethane	20,160	1.00	0.850	U	U	S24090313.D
cis-1,2-Dichloroethene	20,160	1.00	0.530	U	U	S24090313.D
Chloroform	20,160	1.00	0.350 g	U	U	S24090313.D
1,2-Dichloroethane	20,160	1.00	0.560	U	U	S24090313.D
1,1,1-Trichloroethane	20,160	1.00	1.050	U	U	S24090313.D
Carbon Tetrachloride	20,160	1.00	0.430 g	U	U	S24090313.D
Benzene	20,160	1.00	0.530	U	U	S24090313.D
Trichloroethene	20,160	1.00	0.330	U	U	S24090313.D
1,4-Dioxane	20,160	1.00	0.410 g	U	U	S24090313.D
1,1,2-Trichloroethane	20,160	1.00	0.330 g	U	U	S24090313.D
Toluene	20,160	1.00	0.400	U	U	S24090313.D
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	U	U	S24090313.D
Tetrachloroethene	20,160	1.00	0.410	U	U	S24090313.D
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	U	U	S24090313.D
Chlorobenzene	20,160	1.00	0.850 g	U	U	S24090313.D
Ethylbenzene	20,160	1.00	0.850	U	U	S24090313.D
p & m-Xylene	20,160	1.00	0.880	U	U	S24090313.D
o-Xylene	20,160	1.00	0.880	U	U	S24090313.D
1,2,3-Trichloropropane	20,160	1.00	0.750 g	U	U	S24090313.D
Isopropylbenzene	20,160	1.00	0.830 g	U	U	S24090313.D
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090313.D
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	U	U	S24090313.D
1,3-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090313.D
1,4-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090313.D
1,2-Dichlorobenzene	20,160	1.00	0.750 g	U	U	S24090313.D
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090313.D
Naphthalene	20,160	1.00	0.800 g	U	U	S24090313.D
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	U	U	S24090313.D
2-Methylnaphthalene	20,160	1.00	0.760 g	U	U	S24090313.D

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Calculations:

$$C = \frac{1000 \times M \times DF}{U \times t}$$

where: C = concentration ($\mu g/m^3$)
M = mass (ng)
DF = dilution factor
t = sampling time (minutes)
U = compound specific uptake rate

[g] = Uptake rate determined using Graham's Law of Diffusion.

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Lab ID: 0007984-01 **Sample Name:** Trip 1

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m³
Vinyl Chloride	20,160	1.00	0.810	10.0	0.612
1,1-Dichloroethene	20,160	1.00	0.330	10.0	1.50
Methylene Chloride	20,160	1.00	0.350 g	10.0	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	10.0	0.557
trans-1,2-Dichloroethene	20,160	1.00	0.440	10.0	1.13
Methyl-t-butyl ether	20,160	1.00	0.500 g	25.0	2.48
1,1-Dichloroethane	20,160	1.00	0.850	10.0	0.584
cis-1,2-Dichloroethene	20,160	1.00	0.530	10.0	0.936
Chloroform	20,160	1.00	0.350 g	10.0	1.42
1,2-Dichloroethane	20,160	1.00	0.560	10.0	0.886
1,1,1-Trichloroethane	20,160	1.00	1.050	10.0	0.472
Carbon Tetrachloride	20,160	1.00	0.430 g	10.0	1.15
Benzene	20,160	1.00	0.530	25.0	2.34
Trichloroethene	20,160	1.00	0.330	10.0	1.50
1,4-Dioxane	20,160	1.00	0.410 g	10.0	1.21
1,1,2-Trichloroethane	20,160	1.00	0.330 g	10.0	1.50
Toluene	20,160	1.00	0.400	25.0	3.10
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	10.0	1.27
Tetrachloroethene	20,160	1.00	0.410	10.0	1.21
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	10.0	1.21
Chlorobenzene	20,160	1.00	0.850 g	10.0	0.584
Ethylbenzene	20,160	1.00	0.850	25.0	1.46
p & m-Xylene	20,160	1.00	0.880	25.0	1.41
o-Xylene	20,160	1.00	0.880	25.0	1.41
1,2,3-Trichloropropane	20,160	1.00	0.750 g	10.0	0.661
Isopropylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,4-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
Naphthalene	20,160	1.00	0.800 g	10.0	0.620
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
2-Methylnaphthalene	20,160	1.00	0.760 g	10.0	0.653

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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Lab ID: 0007984-02 **Sample Name:** TWA-PSV-01

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m³
Vinyl Chloride	20,160	1.00	0.810	10.0	0.612
1,1-Dichloroethene	20,160	1.00	0.330	10.0	1.50
Methylene Chloride	20,160	1.00	0.350 g	10.0	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	10.0	0.557
trans-1,2-Dichloroethene	20,160	1.00	0.440	10.0	1.13
Methyl-t-butyl ether	20,160	1.00	0.500 g	25.0	2.48
1,1-Dichloroethane	20,160	1.00	0.850	10.0	0.584
cis-1,2-Dichloroethene	20,160	1.00	0.530	10.0	0.936
Chloroform	20,160	1.00	0.350 g	10.0	1.42
1,2-Dichloroethane	20,160	1.00	0.560	10.0	0.886
1,1,1-Trichloroethane	20,160	1.00	1.050	10.0	0.472
Carbon Tetrachloride	20,160	1.00	0.430 g	10.0	1.15
Benzene	20,160	1.00	0.530	25.0	2.34
Trichloroethene	20,160	1.00	0.330	10.0	1.50
1,4-Dioxane	20,160	1.00	0.410 g	10.0	1.21
1,1,2-Trichloroethane	20,160	1.00	0.330 g	10.0	1.50
Toluene	20,160	1.00	0.400	25.0	3.10
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	10.0	1.27
Tetrachloroethene	20,160	1.00	0.410	10.0	1.21
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	10.0	1.21
Chlorobenzene	20,160	1.00	0.850 g	10.0	0.584
Ethylbenzene	20,160	1.00	0.850	25.0	1.46
p & m-Xylene	20,160	1.00	0.880	25.0	1.41
o-Xylene	20,160	1.00	0.880	25.0	1.41
1,2,3-Trichloropropane	20,160	1.00	0.750 g	10.0	0.661
Isopropylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,4-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
Naphthalene	20,160	1.00	0.800 g	10.0	0.620
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
2-Methylnaphthalene	20,160	1.00	0.760 g	10.0	0.653

526 Underwood Lane
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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Lab ID: 0007984-03 **Sample Name:** TWA-PSV-02

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m³
Vinyl Chloride	20,160	1.00	0.810	10.0	0.612
1,1-Dichloroethene	20,160	1.00	0.330	10.0	1.50
Methylene Chloride	20,160	1.00	0.350 g	10.0	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	10.0	0.557
trans-1,2-Dichloroethene	20,160	1.00	0.440	10.0	1.13
Methyl-t-butyl ether	20,160	1.00	0.500 g	25.0	2.48
1,1-Dichloroethane	20,160	1.00	0.850	10.0	0.584
cis-1,2-Dichloroethene	20,160	1.00	0.530	10.0	0.936
Chloroform	20,160	1.00	0.350 g	10.0	1.42
1,2-Dichloroethane	20,160	1.00	0.560	10.0	0.886
1,1,1-Trichloroethane	20,160	1.00	1.050	10.0	0.472
Carbon Tetrachloride	20,160	1.00	0.430 g	10.0	1.15
Benzene	20,160	1.00	0.530	25.0	2.34
Trichloroethene	20,160	1.00	0.330	10.0	1.50
1,4-Dioxane	20,160	1.00	0.410 g	10.0	1.21
1,1,2-Trichloroethane	20,160	1.00	0.330 g	10.0	1.50
Toluene	20,160	1.00	0.400	25.0	3.10
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	10.0	1.27
Tetrachloroethene	20,160	1.00	0.410	10.0	1.21
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	10.0	1.21
Chlorobenzene	20,160	1.00	0.850 g	10.0	0.584
Ethylbenzene	20,160	1.00	0.850	25.0	1.46
p & m-Xylene	20,160	1.00	0.880	25.0	1.41
o-Xylene	20,160	1.00	0.880	25.0	1.41
1,2,3-Trichloropropane	20,160	1.00	0.750 g	10.0	0.661
Isopropylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,4-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
Naphthalene	20,160	1.00	0.800 g	10.0	0.620
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
2-Methylnaphthalene	20,160	1.00	0.760 g	10.0	0.653

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Lab ID: 0007984-04 **Sample Name:** TWA-PSV-03

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m³
Vinyl Chloride	20,160	1.00	0.810	10.0	0.612
1,1-Dichloroethene	20,160	1.00	0.330	10.0	1.50
Methylene Chloride	20,160	1.00	0.350 g	10.0	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	10.0	0.557
trans-1,2-Dichloroethene	20,160	1.00	0.440	10.0	1.13
Methyl-t-butyl ether	20,160	1.00	0.500 g	25.0	2.48
1,1-Dichloroethane	20,160	1.00	0.850	10.0	0.584
cis-1,2-Dichloroethene	20,160	1.00	0.530	10.0	0.936
Chloroform	20,160	1.00	0.350 g	10.0	1.42
1,2-Dichloroethane	20,160	1.00	0.560	10.0	0.886
1,1,1-Trichloroethane	20,160	1.00	1.050	10.0	0.472
Carbon Tetrachloride	20,160	1.00	0.430 g	10.0	1.15
Benzene	20,160	1.00	0.530	25.0	2.34
Trichloroethene	20,160	1.00	0.330	10.0	1.50
1,4-Dioxane	20,160	1.00	0.410 g	10.0	1.21
1,1,2-Trichloroethane	20,160	1.00	0.330 g	10.0	1.50
Toluene	20,160	1.00	0.400	25.0	3.10
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	10.0	1.27
Tetrachloroethene	20,160	1.00	0.410	10.0	1.21
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	10.0	1.21
Chlorobenzene	20,160	1.00	0.850 g	10.0	0.584
Ethylbenzene	20,160	1.00	0.850	25.0	1.46
p & m-Xylene	20,160	1.00	0.880	25.0	1.41
o-Xylene	20,160	1.00	0.880	25.0	1.41
1,2,3-Trichloropropane	20,160	1.00	0.750 g	10.0	0.661
Isopropylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,4-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
Naphthalene	20,160	1.00	0.800 g	10.0	0.620
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
2-Methylnaphthalene	20,160	1.00	0.760 g	10.0	0.653

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m³
Lab ID: 0007984-05 **Sample Name:** TWA-PSV-04					
Vinyl Chloride	20,160	1.00	0.810	10.0	0.612
1,1-Dichloroethene	20,160	1.00	0.330	10.0	1.50
Methylene Chloride	20,160	1.00	0.350 g	10.0	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	10.0	0.557
trans-1,2-Dichloroethene	20,160	1.00	0.440	10.0	1.13
Methyl-t-butyl ether	20,160	1.00	0.500 g	25.0	2.48
1,1-Dichloroethane	20,160	1.00	0.850	10.0	0.584
cis-1,2-Dichloroethene	20,160	1.00	0.530	10.0	0.936
Chloroform	20,160	1.00	0.350 g	10.0	1.42
1,2-Dichloroethane	20,160	1.00	0.560	10.0	0.886
1,1,1-Trichloroethane	20,160	1.00	1.050	10.0	0.472
Carbon Tetrachloride	20,160	1.00	0.430 g	10.0	1.15
Benzene	20,160	1.00	0.530	25.0	2.34
Trichloroethene	20,160	1.00	0.330	10.0	1.50
1,4-Dioxane	20,160	1.00	0.410 g	10.0	1.21
1,1,2-Trichloroethane	20,160	1.00	0.330 g	10.0	1.50
Toluene	20,160	1.00	0.400	25.0	3.10
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	10.0	1.27
Tetrachloroethene	20,160	1.00	0.410	10.0	1.21
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	10.0	1.21
Chlorobenzene	20,160	1.00	0.850 g	10.0	0.584
Ethylbenzene	20,160	1.00	0.850	25.0	1.46
p & m-Xylene	20,160	1.00	0.880	25.0	1.41
o-Xylene	20,160	1.00	0.880	25.0	1.41
1,2,3-Trichloropropane	20,160	1.00	0.750 g	10.0	0.661
Isopropylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,4-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
Naphthalene	20,160	1.00	0.800 g	10.0	0.620
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
2-Methylnaphthalene	20,160	1.00	0.760 g	10.0	0.653

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Lab ID: 0007984-06 **Sample Name:** TWA-PSV-05

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m³
Vinyl Chloride	20,160	1.00	0.810	10.0	0.612
1,1-Dichloroethene	20,160	1.00	0.330	10.0	1.50
Methylene Chloride	20,160	1.00	0.350 g	10.0	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	10.0	0.557
trans-1,2-Dichloroethene	20,160	1.00	0.440	10.0	1.13
Methyl-t-butyl ether	20,160	1.00	0.500 g	25.0	2.48
1,1-Dichloroethane	20,160	1.00	0.850	10.0	0.584
cis-1,2-Dichloroethene	20,160	1.00	0.530	10.0	0.936
Chloroform	20,160	1.00	0.350 g	10.0	1.42
1,2-Dichloroethane	20,160	1.00	0.560	10.0	0.886
1,1,1-Trichloroethane	20,160	1.00	1.050	10.0	0.472
Carbon Tetrachloride	20,160	1.00	0.430 g	10.0	1.15
Benzene	20,160	1.00	0.530	25.0	2.34
Trichloroethene	20,160	1.00	0.330	10.0	1.50
1,4-Dioxane	20,160	1.00	0.410 g	10.0	1.21
1,1,2-Trichloroethane	20,160	1.00	0.330 g	10.0	1.50
Toluene	20,160	1.00	0.400	25.0	3.10
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	10.0	1.27
Tetrachloroethene	20,160	1.00	0.410	10.0	1.21
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	10.0	1.21
Chlorobenzene	20,160	1.00	0.850 g	10.0	0.584
Ethylbenzene	20,160	1.00	0.850	25.0	1.46
p & m-Xylene	20,160	1.00	0.880	25.0	1.41
o-Xylene	20,160	1.00	0.880	25.0	1.41
1,2,3-Trichloropropane	20,160	1.00	0.750 g	10.0	0.661
Isopropylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,4-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
Naphthalene	20,160	1.00	0.800 g	10.0	0.620
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
2-Methylnaphthalene	20,160	1.00	0.760 g	10.0	0.653

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Lab ID: 0007984-07 **Sample Name:** TWA-PSV-05-DUP

Analyte	t Sampling Time minutes	DF Dilution Factor	U Uptake Rate	M Initial LOQ ng	C Calculated LOQ µg/m³
Vinyl Chloride	20,160	1.00	0.810	10.0	0.612
1,1-Dichloroethene	20,160	1.00	0.330	10.0	1.50
Methylene Chloride	20,160	1.00	0.350 g	10.0	1.42
1,1,2-Trichlorotrifluoroethane (Fr.113)	20,160	1.00	0.890 g	10.0	0.557
trans-1,2-Dichloroethene	20,160	1.00	0.440	10.0	1.13
Methyl-t-butyl ether	20,160	1.00	0.500 g	25.0	2.48
1,1-Dichloroethane	20,160	1.00	0.850	10.0	0.584
cis-1,2-Dichloroethene	20,160	1.00	0.530	10.0	0.936
Chloroform	20,160	1.00	0.350 g	10.0	1.42
1,2-Dichloroethane	20,160	1.00	0.560	10.0	0.886
1,1,1-Trichloroethane	20,160	1.00	1.050	10.0	0.472
Carbon Tetrachloride	20,160	1.00	0.430 g	10.0	1.15
Benzene	20,160	1.00	0.530	25.0	2.34
Trichloroethene	20,160	1.00	0.330	10.0	1.50
1,4-Dioxane	20,160	1.00	0.410 g	10.0	1.21
1,1,2-Trichloroethane	20,160	1.00	0.330 g	10.0	1.50
Toluene	20,160	1.00	0.400	25.0	3.10
1,2-Dibromoethane (EDB)	20,160	1.00	0.390 g	10.0	1.27
Tetrachloroethene	20,160	1.00	0.410	10.0	1.21
1,1,1,2-Tetrachloroethane	20,160	1.00	0.410 g	10.0	1.21
Chlorobenzene	20,160	1.00	0.850 g	10.0	0.584
Ethylbenzene	20,160	1.00	0.850	25.0	1.46
p & m-Xylene	20,160	1.00	0.880	25.0	1.41
o-Xylene	20,160	1.00	0.880	25.0	1.41
1,2,3-Trichloropropane	20,160	1.00	0.750 g	10.0	0.661
Isopropylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3,5-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,2,4-Trimethylbenzene	20,160	1.00	0.830 g	25.0	1.49
1,3-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,4-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2-Dichlorobenzene	20,160	1.00	0.750 g	10.0	0.661
1,2,4-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
Naphthalene	20,160	1.00	0.800 g	10.0	0.620
1,2,3-Trichlorobenzene	20,160	1.00	0.390 g	10.0	1.27
2-Methylnaphthalene	20,160	1.00	0.760 g	10.0	0.653

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Laboratory Certification List

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	12/30/2024	
Colorado	MD010912023	Colorado Division of Oil and Public Safety	11/23/2024	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAP	12097	New York Department of Health	04/01/2025	
Utah-NELAP	MD010912024-15	Utah Department of Health	12/31/2024	
Washington State	C1085	The State of Washington Department of Ecology	05/23/2025	

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Qualifiers/Notes and Definitions

General Definitions:

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
%RE	Percent Relative Error
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside $\pm$0.06 control limits)
RV	Calibration reference value
VISL	EPA Vapor Intrusion Screening Level
3σ	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

BR4FBZ	Bromofluorobenzene
BZMED8	Toluene-d8
CLBZD5	Chlorobenzene-d5
DCA12D4	1,2-DCA-d4
DCBZ14D4	1,4-Dichlorobenzene-d4
FBZ	Fluorobenzene

Sample/Sample Receipt Qualifiers and Notes:

U	Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Standard Traceability

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Stock Standard Certificates of Analysis

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2100406

Lot No.: 112921

CERTIFIED WEIGHT REPORT

Part Number: 92026
Lot Number: 112921
Description: EPA Method 8260B Internal & Surrogate Standard
7 components
Expiration Date: 112926
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Methanol	EA899-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

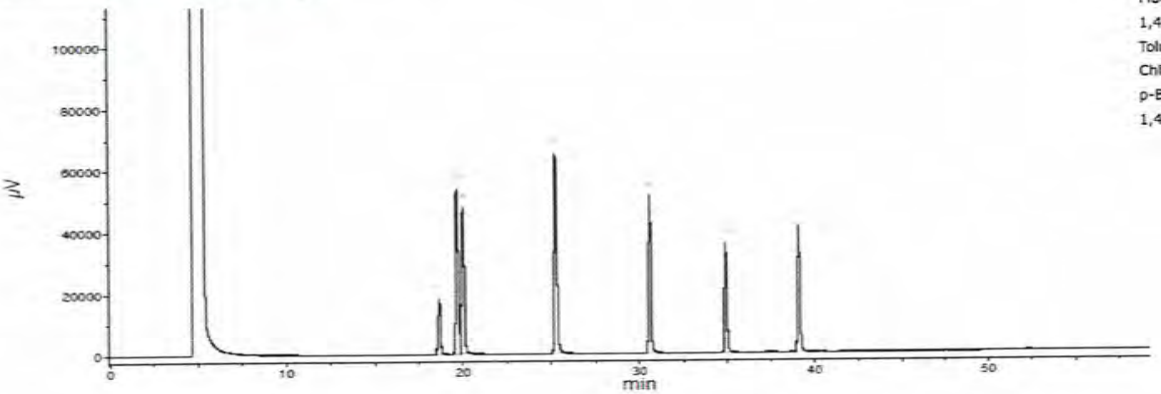
		112921
Formulated By:	Benson Chan	DATE
		112921
Reviewed By:	Pedro L. Rentas	DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Chlorobenzene-d5	69	PR-29571/02028CZ1	2000	99.8	0.2	0.20041	0.20171	2013.0	8.1	3114-55-4	N/A	orl-rat 1110mg/kg
2.	1,4-Dichlorobenzene-d4	118	PR-30447	2000	99.8	0.2	0.20041	0.20118	2007.7	8.1	3855-82-1	N/A	orl-rat 500mg/kg
3.	Fluorobenzene	186	16006LH	2000	99	0.2	0.20203	0.20312	2010.8	8.2	462-06-6	N/A	orl-rat 4399mg/kg
4.	p-Bromofluorobenzene	48	01127COV	2000	99	0.2	0.20203	0.20243	2004.0	8.2	460-00-4	N/A	orl-rat 2700mg/kg
5.	1,4-Difluorobenzene	155	13105AO	2000	99	0.2	0.20203	0.20285	2008.1	8.2	540-36-3	N/A	N/A
6.	1,2-Dichloroethane-d4	137	PR-29377	2000	99	0.2	0.20203	0.20311	2010.7	8.2	17060-07-0	N/A	orl-mus 625mg/kg
7.	Toluene-d8	282	PR-27981/120116TL1	2000	99.5	0.2	0.20101	0.20162	2006.0	8.1	2037-26-5	200 ppm	orl-rat 5000mg/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

2100406
Rec 12/1/2021 BR
Opened 12/1/2021 BR

Comments
GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=5



Name	FID (min.)
1,2-Dichloroethane-d4	18.62
Fluorobenzene	19.66
1,4-Difluorobenzene	19.99
Toluene-d8	25.25
Chlorobenzene-d5	30.56
p-Bromofluorobenzene	34.89
1,4-Dichlorobenzene-d4	39.09

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2200206

Lot No.: 040620

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 19167
Lot Number: 040620
Description: CLP - Instrument Performance Check Solution
p-Bromofluorobenzene
Expiration Date: 040625
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 2500
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

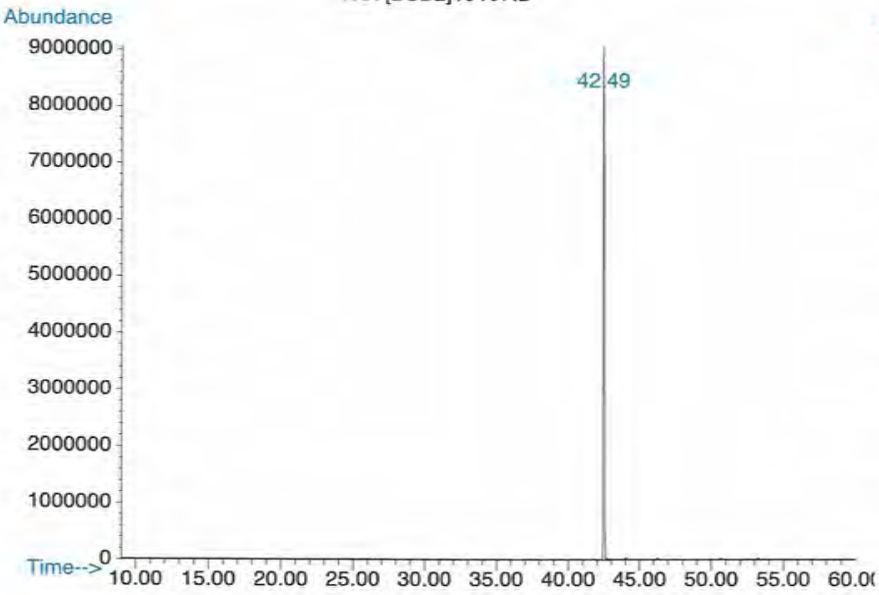
Solvent(s): **Lot#**
Methanol DX932-US

Formulated By:	Benson Chan	040620 DATE
Reviewed By:	Pedro L. Rentas	040620 DATE

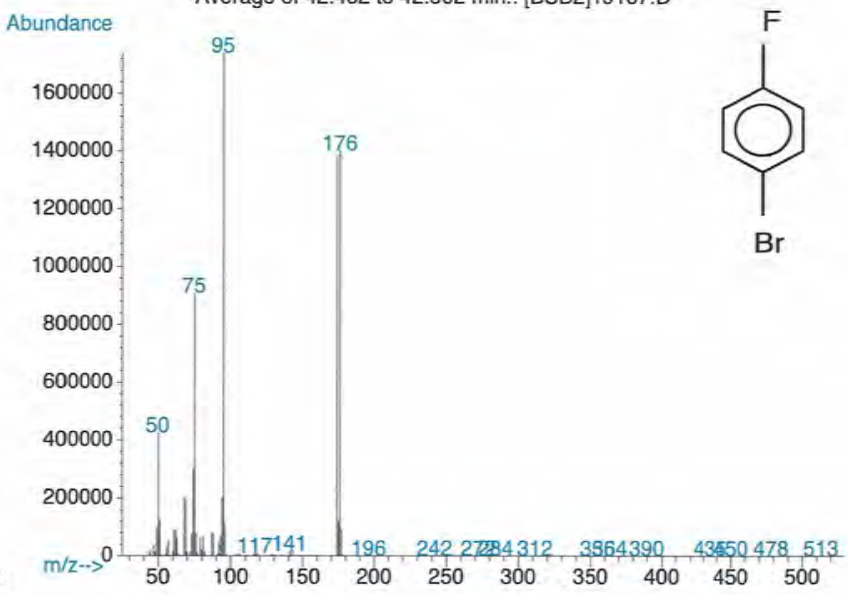
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. p-Bromofluorobenzene	48	01127COV	2500	99	0.2	0.25254	0.25265	2501.1	10.2	460-00-4	N/A	orl-rat 2700mg/kg

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness).Temp. 1=35°C (10min.), Temp. 2=200°C (8.75 min.), Rate=4°C/min., Injector Temp.=200°C, Detector Temp.=220°C. Solvent vent time = 6 min. Analysis performed by Candice Warren.

TIC: [BSB2]19167.D



Average of 42.462 to 42.502 min.: [BSB2]19167.D



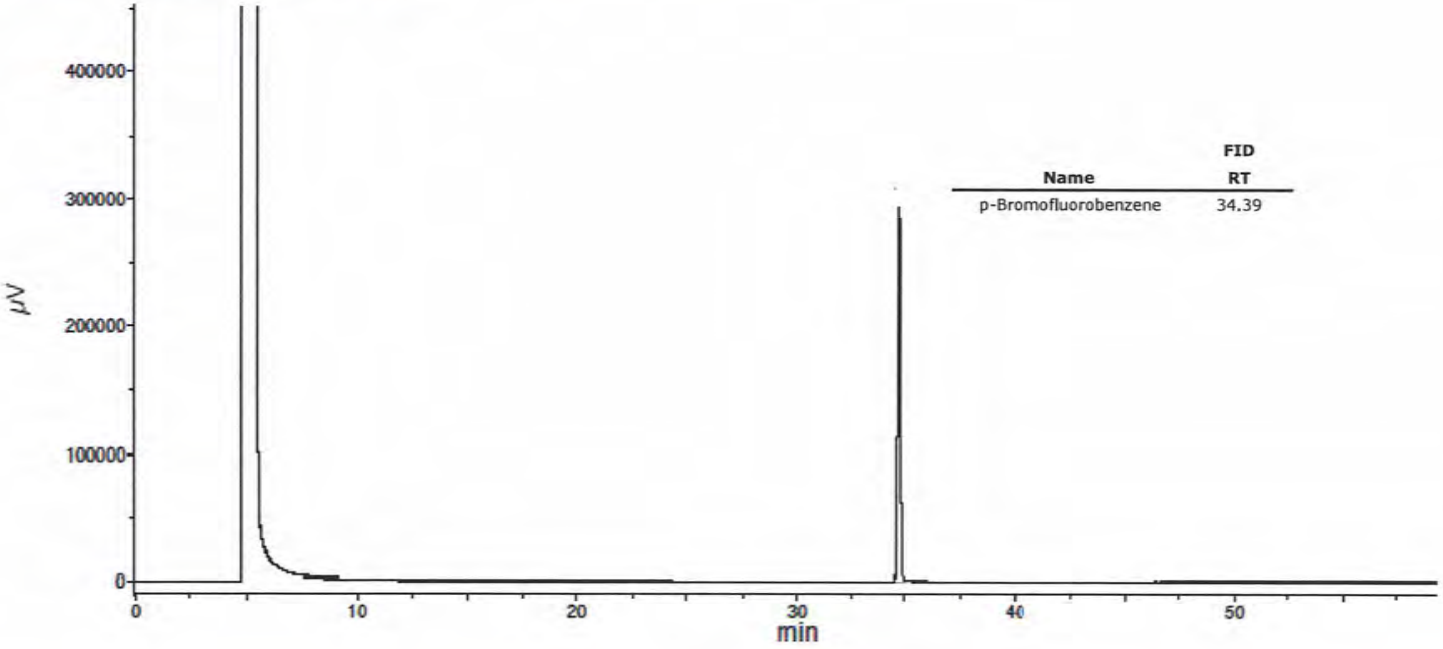
- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Run 10, "P19167 L040620 [2500µg/mL in MeOH]"

Run Length: 60.00 min, 36000 points at 10 points/second.
Created: Thu, Apr 9, 2020 at 1:16:55 AM.
Sampled: Sequence "040920-GC13M1", Method "GC13-M1".
Analyzed using Method "GC13-M1".

Comments

GC13-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydcgen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=3



BEACON ENVIRONMENTAL

526 Underwood Lane
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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300029

Lot No.: 010423

ABSOLUTE STANDARDS, Inc.
(800)-368-1131
www.absolutestandards.com

ISO 9001 QS Registered
ISO 17025 QS Accredited

CERTIFIED WEIGHT REPORT

Part Number: 64878
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 1
93 components
Expiration Date: 010426 **Solvent:** Methanol **Lot#** EE584-USQ6
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 5
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Formulated By:	Eli Aliaga	010423 DATE
Reviewed By:	Pedro L. Rentas	010423 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.0025	0.50	0.004	2002.9	5.0	0.1	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.0025	0.50	0.004	2008.7	5.0	0.1	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.0025	0.50	0.004	2002.2	5.0	0.1	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.0025	0.50	0.004	2005.6	5.0	0.1	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.0025	0.50	0.004	2003.1	5.0	0.1	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.0025	0.50	0.004	2004.6	5.0	0.1	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.0025	0.50	0.004	2000.1	5.0	0.1	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.0025	0.50	0.004	2000.1	5.0	0.1	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.0025	0.50	0.004	2001.4	5.0	0.1	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.0025	0.50	0.004	2000.7	5.0	0.1	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.0025	0.50	0.004	2000.6	5.0	0.1	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.0025	0.50	0.004	2000.8	5.0	0.1	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.0025	0.50	0.004	2000.8	5.0	0.1	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.0025	0.50	0.004	2000.7	5.0	0.1	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.0025	0.50	0.004	2001.1	5.0	0.1	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.0025	0.50	0.004	2000.8	5.0	0.1	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.0025	0.50	0.004	2002.5	5.0	0.1	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.0025	0.50	0.004	2000.5	5.0	0.1	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.0025	0.50	0.004	2000.8	5.0	0.1	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.0025	0.50	0.004	2001.0	5.0	0.1	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.0025	0.50	0.004	2000.5	5.0	0.1	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.0025	0.50	0.004	2001.4	5.0	0.1	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.0025	0.50	0.004	2000.5	5.0	0.1	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.0025	0.50	0.004	2000.5	5.0	0.1	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.0025	0.50	0.004	2000.1	5.0	0.1	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.0025	0.50	0.004	2000.0	5.0	0.1	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.0025	0.50	0.004	2000.3	5.0	0.1	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.0025	0.50	0.004	2000.5	5.0	0.1	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.0025	0.50	0.004	2001.3	5.0	0.1	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.0025	0.50	0.004	2000.6	5.0	0.1	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.0025	0.50	0.004	2000.1	5.0	0.1	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.0025	0.50	0.004	2000.5	5.0	0.1	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.0025	0.50	0.004	2000.4	5.0	0.1	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.0025	0.50	0.004	2000.2	5.0	0.1	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.0025	0.50	0.004	2000.5	5.0	0.1	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.0025	0.50	0.004	1000.1	**2.5**	0.0	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.0025	0.50	0.004	1001.1	**2.5**	0.0	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.0025	0.50	0.004	2020.6	5.1	0.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.0025	0.50	0.004	2000.6	5.0	0.1	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.0025	0.50	0.004	2000.5	5.0	0.1	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.0025	0.50	0.004	2000.5	5.0	0.1	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.0025	0.50	0.004	2000.2	5.0	0.1	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.0025	0.50	0.004	2000.7	5.0	0.1	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.0025	0.50	0.004	2004.0	5.0	0.1	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.0025	0.50	0.004	2000.4	5.0	0.1	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.0025	0.50	0.004	2001.9	5.0	0.1	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.0025	0.50	0.004	2001.4	5.0	0.1	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.0025	0.50	0.004	2001.9	5.0	0.1	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.0025	0.50	0.004	2001.9	5.0	0.1	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.0025	0.50	0.004	2003.3	5.0	0.1	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.0025	0.50	0.004	2007.4	5.0	0.1	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.0025	0.50	0.004	2004.8	5.0	0.1	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.0025	0.50	0.004	2010.3	5.0	0.1	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.0025	0.50	0.004	2004.8	5.0	0.1	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.0025	0.50	0.004	2007.0	5.0	0.1	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.0025	0.50	0.004	2003.1	5.0	0.1	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.0025	0.50	0.004	2017.7	5.0	0.1	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.0025	0.50	0.004	2009.0	5.0	0.1	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.0025	0.50	0.004	2009.6	5.0	0.1	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.0025	0.50	0.004	2015.3	5.0	0.1	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.0025	0.50	0.004	2000.3	5.0	0.1	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.0025	0.50	0.004	2000.3	5.0	0.1	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.0025	0.50	0.004	2000.4	5.0	0.1	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.0025	0.50	0.004	2000.2	5.0	0.1	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.0025	0.50	0.004	2005.9	5.0	0.1	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.0025	0.50	0.004	2003.1	5.0	0.1	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.0025	0.50	0.004	2000.7	5.0	0.1	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	20.00	0.003	2001.7	**200.2**	0.8	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	20.00	0.003	2001.0	**200.1**	0.8	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	20.00	0.003	2004.9	**200.5**	0.8	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300031

Lot No.: 010423

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CERTIFIED WEIGHT REPORT

Part Number: 64879
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 2
93 components
Expiration Date: 010426 **Solvent:** Methanol **Lot#** EE584-USQ6
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 10
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By: Eli Aliaga 010423 DATE

Reviewed By: Pedro L. Rentas 010423 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.005	0.50	0.004	2002.9	10.0	0.2	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.005	0.50	0.004	2008.7	10.0	0.2	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.005	0.50	0.004	2002.2	10.0	0.2	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.005	0.50	0.004	2005.6	10.0	0.2	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.005	0.50	0.004	2003.1	10.0	0.2	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.005	0.50	0.004	2004.6	10.0	0.2	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.005	0.50	0.004	2000.1	10.0	0.2	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.005	0.50	0.004	2000.1	10.0	0.2	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.005	0.50	0.004	2001.4	10.0	0.2	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.005	0.50	0.004	2000.7	10.0	0.2	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.005	0.50	0.004	2000.6	10.0	0.2	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.005	0.50	0.004	2000.8	10.0	0.2	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.005	0.50	0.004	2000.8	10.0	0.2	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.005	0.50	0.004	2000.7	10.0	0.2	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.005	0.50	0.004	2001.1	10.0	0.2	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.005	0.50	0.004	2000.8	10.0	0.2	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.005	0.50	0.004	2002.5	10.0	0.2	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.005	0.50	0.004	2000.5	10.0	0.2	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.005	0.50	0.004	2000.8	10.0	0.2	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.005	0.50	0.004	2001.0	10.0	0.2	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.005	0.50	0.004	2000.5	10.0	0.2	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.005	0.50	0.004	2001.4	10.0	0.2	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.005	0.50	0.004	2000.5	10.0	0.2	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.005	0.50	0.004	2000.5	10.0	0.2	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.005	0.50	0.004	2000.1	10.0	0.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.005	0.50	0.004	2000.0	10.0	0.2	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.005	0.50	0.004	2000.3	10.0	0.2	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.005	0.50	0.004	2000.5	10.0	0.2	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.005	0.50	0.004	2001.3	10.0	0.2	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.005	0.50	0.004	2000.6	10.0	0.2	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.005	0.50	0.004	2000.1	10.0	0.2	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.005	0.50	0.004	2000.5	10.0	0.2	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.005	0.50	0.004	2000.4	10.0	0.2	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.005	0.50	0.004	2000.2	10.0	0.2	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.005	0.50	0.004	2000.5	10.0	0.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.005	0.50	0.004	1000.1	**5.0**	0.1	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.005	0.50	0.004	1001.1	**5.0**	0.1	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.005	0.50	0.004	2020.6	10.1	0.2	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.005	0.50	0.004	2000.6	10.0	0.2	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.005	0.50	0.004	2000.5	10.0	0.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.005	0.50	0.004	2000.5	10.0	0.2	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.005	0.50	0.004	2000.2	10.0	0.2	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.005	0.50	0.004	2000.7	10.0	0.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.005	0.50	0.004	2004.0	10.0	0.2	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.005	0.50	0.004	2000.4	10.0	0.2	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.005	0.50	0.004	2001.9	10.0	0.2	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.005	0.50	0.004	2001.4	10.0	0.2	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.005	0.50	0.004	2001.9	10.0	0.2	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.005	0.50	0.004	2001.9	10.0	0.2	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.005	0.50	0.004	2003.3	10.0	0.2	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.005	0.50	0.004	2007.4	10.0	0.2	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.005	0.50	0.004	2004.8	10.0	0.2	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.005	0.50	0.004	2010.3	10.1	0.2	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.005	0.50	0.004	2004.8	10.0	0.2	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.005	0.50	0.004	2007.0	10.0	0.2	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.005	0.50	0.004	2003.1	10.0	0.2	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.005	0.50	0.004	2017.7	10.1	0.2	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.005	0.50	0.004	2009.0	10.0	0.2	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.005	0.50	0.004	2009.6	10.0	0.2	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.005	0.50	0.004	2015.3	10.1	0.2	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.005	0.50	0.004	2000.3	10.0	0.2	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.005	0.50	0.004	2000.3	10.0	0.2	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.005	0.50	0.004	2000.4	10.0	0.2	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.005	0.50	0.004	2000.2	10.0	0.2	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.005	0.50	0.004	2005.9	10.0	0.2	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.005	0.50	0.004	2003.1	10.0	0.2	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.005	0.50	0.004	2000.7	10.0	0.2	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	10.00	0.042	2001.7	**200.2**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	10.00	0.042	2001.0	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	10.00	0.042	2004.9	**200.5**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300032

Lot No.: 010423

ABSOLUTE STANDARDS, Inc.
(800)-368-1131
www.absolutestandards.com

ISO 9001 QS Registered
ISO 17025 QS Accredited

CERTIFIED WEIGHT REPORT

Part Number: 64880
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 3
93 components
Expiration Date: 010426 **Solvent:** Methanol **Lot#** EE584-USQ6
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 20
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By:	Eli Aliaga	010423 DATE
Reviewed By:	Pedro L. Rentas	010423 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.010	1.00	0.004	2002.9	20.0	0.2	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.010	1.00	0.004	2008.7	20.1	0.2	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.010	1.00	0.004	2002.2	20.0	0.2	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.010	1.00	0.004	2005.6	20.1	0.2	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.010	1.00	0.004	2003.1	20.0	0.2	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.010	1.00	0.004	2004.6	20.0	0.2	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.010	1.00	0.004	2000.1	20.0	0.2	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.010	1.00	0.004	2000.1	20.0	0.2	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.010	1.00	0.004	2001.4	20.0	0.2	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.010	1.00	0.004	2000.7	20.0	0.2	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.010	1.00	0.004	2000.6	20.0	0.2	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.010	1.00	0.004	2000.8	20.0	0.2	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.010	1.00	0.004	2000.8	20.0	0.2	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.010	1.00	0.004	2000.7	20.0	0.2	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.010	1.00	0.004	2001.1	20.0	0.2	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.010	1.00	0.004	2000.8	20.0	0.2	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.010	1.00	0.004	2002.5	20.0	0.2	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.010	1.00	0.004	2000.5	20.0	0.3	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.010	1.00	0.004	2000.8	20.0	0.2	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.010	1.00	0.004	2001.0	20.0	0.3	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.010	1.00	0.004	2000.5	20.0	0.2	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.010	1.00	0.004	2001.4	20.0	0.2	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.010	1.00	0.004	2000.5	20.0	0.2	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.010	1.00	0.004	2000.5	20.0	0.2	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.010	1.00	0.004	2000.1	20.0	0.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.010	1.00	0.004	2000.0	20.0	0.2	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.010	1.00	0.004	2000.3	20.0	0.2	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.010	1.00	0.004	2000.5	20.0	0.2	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.010	1.00	0.004	2001.3	20.0	0.2	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.010	1.00	0.004	2000.6	20.0	0.2	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.010	1.00	0.004	2000.1	20.0	0.2	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.010	1.00	0.004	2000.5	20.0	0.2	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.010	1.00	0.004	2000.4	20.0	0.2	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.010	1.00	0.004	2000.2	20.0	0.2	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.010	1.00	0.004	2000.5	20.0	0.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.010	1.00	0.004	1000.1	**10.0**	0.1	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.010	1.00	0.004	1001.1	**10.0**	0.1	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.010	1.00	0.004	2020.6	20.2	0.2	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.010	1.00	0.004	2000.6	20.0	0.2	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.010	1.00	0.004	2000.5	20.0	0.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.010	1.00	0.004	2000.5	20.0	0.2	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.010	1.00	0.004	2000.2	20.0	0.2	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.010	1.00	0.004	2000.7	20.0	0.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.010	1.00	0.004	2004.0	20.0	0.2	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.010	1.00	0.004	2000.4	20.0	0.2	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.010	1.00	0.004	2001.9	20.0	0.2	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.010	1.00	0.004	2001.4	20.0	0.2	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.010	1.00	0.004	2001.9	20.0	0.2	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.010	1.00	0.004	2001.9	20.0	0.2	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.010	1.00	0.004	2003.3	20.0	0.2	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.010	1.00	0.004	2007.4	20.1	0.2	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.010	1.00	0.004	2004.8	20.0	0.2	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.010	1.00	0.004	2010.3	20.1	0.2	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.010	1.00	0.004	2004.8	20.0	0.2	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.010	1.00	0.004	2007.0	20.1	0.2	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.010	1.00	0.004	2003.1	20.0	0.2	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.010	1.00	0.004	2017.7	20.2	0.2	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.010	1.00	0.004	2009.0	20.1	0.2	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.010	1.00	0.004	2009.6	20.1	0.2	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.010	1.00	0.004	2015.3	20.2	0.2	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.010	1.00	0.004	2000.3	20.0	0.2	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.010	1.00	0.004	2000.3	20.0	0.2	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.010	1.00	0.004	2000.4	20.0	0.2	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.010	1.00	0.004	2000.2	20.0	0.2	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.010	1.00	0.004	2005.9	20.1	0.2	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.010	1.00	0.004	2003.1	20.0	0.2	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.010	1.00	0.004	2000.7	20.0	0.2	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	10.00	0.042	2001.7	**200.2**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	10.00	0.042	2001.0	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	10.00	0.042	2004.9	**200.5**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300033

Lot No.: 010423

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CERTIFIED WEIGHT REPORT

Part Number: 64881
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 4
93 components
Expiration Date: 010426 **Solvent:** Methanol **Lot#** EE584-USQ6
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 50
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By: Eli Aliaga 010423 DATE

Reviewed By: Pedro L. Rentas 010423 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.025	2.50	0.017	2002.9	50.1	0.7	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.025	2.50	0.017	2008.7	50.2	0.7	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.025	2.50	0.017	2002.2	50.1	0.7	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.025	2.50	0.017	2005.6	50.1	0.7	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.025	2.50	0.017	2003.1	50.1	0.7	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.025	2.50	0.017	2004.6	50.1	0.7	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.025	2.50	0.017	2000.1	50.0	0.8	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.025	2.50	0.017	2000.1	50.0	0.8	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.025	2.50	0.017	2001.4	50.0	0.8	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.025	2.50	0.017	2000.7	50.0	0.8	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.025	2.50	0.017	2000.6	50.0	0.8	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.025	2.50	0.017	2000.8	50.0	0.8	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.025	2.50	0.017	2000.8	50.0	0.8	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.025	2.50	0.017	2000.7	50.0	0.8	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.025	2.50	0.017	2001.1	50.0	0.8	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.025	2.50	0.017	2000.8	50.0	0.8	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.025	2.50	0.017	2002.5	50.1	0.8	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.025	2.50	0.017	2000.5	50.0	0.9	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.025	2.50	0.017	2000.8	50.0	0.8	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.025	2.50	0.017	2001.0	50.0	0.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.025	2.50	0.017	2000.5	50.0	0.8	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.025	2.50	0.017	2001.4	50.0	0.8	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.025	2.50	0.017	2000.5	50.0	0.8	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.025	2.50	0.017	2000.5	50.0	0.8	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.025	2.50	0.017	2000.1	50.0	0.8	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.025	2.50	0.017	2000.0	50.0	0.8	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.025	2.50	0.017	2000.3	50.0	0.8	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.025	2.50	0.017	2000.5	50.0	0.8	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.025	2.50	0.017	2001.3	50.0	0.8	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.025	2.50	0.017	2000.6	50.0	0.8	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.025	2.50	0.017	2000.1	50.0	0.8	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.025	2.50	0.017	2000.5	50.0	0.8	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.025	2.50	0.017	2000.4	50.0	0.8	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.025	2.50	0.017	2000.2	50.0	0.8	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.025	2.50	0.017	2000.5	50.0	0.8	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.025	2.50	0.017	1000.1	**25.0**	0.4	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.025	2.50	0.017	1001.1	**25.0**	0.4	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.025	2.50	0.017	2020.6	50.5	0.8	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.025	2.50	0.017	2000.6	50.0	0.8	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.025	2.50	0.017	2000.5	50.0	0.8	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.025	2.50	0.017	2000.5	50.0	0.8	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.025	2.50	0.017	2000.2	50.0	0.8	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.025	2.50	0.017	2000.7	50.0	0.8	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.025	2.50	0.017	2004.0	50.1	0.7	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.025	2.50	0.017	2000.4	50.0	0.7	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.025	2.50	0.017	2001.9	50.0	0.7	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.025	2.50	0.017	2001.4	50.0	0.7	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.025	2.50	0.017	2001.9	50.0	0.7	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.025	2.50	0.017	2001.9	50.0	0.7	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.025	2.50	0.017	2003.3	50.1	0.7	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.025	2.50	0.017	2007.4	50.2	0.7	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.025	2.50	0.017	2004.8	50.1	0.7	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.025	2.50	0.017	2010.3	50.3	0.7	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.025	2.50	0.017	2004.8	50.1	0.7	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.025	2.50	0.017	2007.0	50.2	0.7	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.025	2.50	0.017	2003.1	50.1	0.7	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.025	2.50	0.017	2017.7	50.4	0.7	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.025	2.50	0.017	2009.0	50.2	0.7	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.025	2.50	0.017	2009.6	50.2	0.7	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.025	2.50	0.017	2015.3	50.4	0.7	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.025	2.50	0.017	2000.3	50.0	0.7	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.025	2.50	0.017	2000.3	50.0	0.7	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.025	2.50	0.017	2000.4	50.0	0.7	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.025	2.50	0.017	2000.2	50.0	0.7	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.025	2.50	0.017	2005.9	50.1	0.7	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.025	2.50	0.017	2003.1	50.1	0.7	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.025	2.50	0.017	2000.7	50.0	0.7	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	10.00	0.042	2001.7	**200.2**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	10.00	0.042	2001.0	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	10.00	0.042	2004.9	**200.5**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300034

Lot No.: 010423

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CERTIFIED WEIGHT REPORT

Part Number: 64882
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 5
93 components
Expiration Date: 010426 **Solvent:** Methanol **Lot#** EE584-USQ6
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 100
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By:	Eli Aliaga	010423 DATE
Reviewed By:	Pedro L. Rentas	010423 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.050	5.00	0.017	2002.9	100.1	0.8	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.050	5.00	0.017	2008.7	100.4	0.8	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.050	5.00	0.017	2002.2	100.1	0.8	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.050	5.00	0.017	2005.6	100.3	0.8	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.050	5.00	0.017	2003.1	100.2	0.8	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.050	5.00	0.017	2004.6	100.2	0.8	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.0	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.0	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.050	5.00	0.017	2001.4	100.1	1.0	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.050	5.00	0.017	2000.7	100.0	1.0	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.050	5.00	0.017	2000.6	100.0	1.0	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.050	5.00	0.017	2000.7	100.0	1.0	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.050	5.00	0.017	2001.1	100.1	1.0	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.050	5.00	0.017	2002.5	100.1	1.0	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.4	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.0	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.050	5.00	0.017	2001.0	100.0	1.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.0	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.050	5.00	0.017	2001.4	100.1	1.0	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.050	5.00	0.017	2000.0	100.0	1.2	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.050	5.00	0.017	2001.3	100.1	1.2	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.050	5.00	0.017	2000.6	100.0	1.2	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.2	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.050	5.00	0.017	1000.1	**50.0**	0.5	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.050	5.00	0.017	1001.1	**50.1**	0.5	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.050	5.00	0.017	2020.6	101.0	1.2	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.050	5.00	0.017	2000.6	100.0	1.2	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.050	5.00	0.017	2000.2	100.0	1.2	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.050	5.00	0.017	2000.7	100.0	1.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.050	5.00	0.017	2004.0	100.2	0.8	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.050	5.00	0.017	2000.4	100.0	0.8	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.050	5.00	0.017	2001.4	100.1	0.8	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.050	5.00	0.017	2003.3	100.2	0.8	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.050	5.00	0.017	2007.4	100.4	0.8	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.050	5.00	0.017	2004.8	100.2	0.8	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.050	5.00	0.017	2010.3	100.5	0.8	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.050	5.00	0.017	2004.8	100.2	0.8	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.050	5.00	0.017	2007.0	100.3	0.8	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.050	5.00	0.017	2003.1	100.1	0.8	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.050	5.00	0.017	2017.7	100.9	0.8	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.050	5.00	0.017	2009.0	100.4	0.8	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.050	5.00	0.017	2009.6	100.5	0.8	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.050	5.00	0.017	2015.3	100.8	0.8	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.050	5.00	0.017	2000.3	100.0	0.8	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.050	5.00	0.017	2000.3	100.0	0.8	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.050	5.00	0.017	2000.4	100.0	0.8	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.050	5.00	0.017	2000.2	100.0	0.8	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.050	5.00	0.017	2005.9	100.3	0.8	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.050	5.00	0.017	2003.1	100.1	0.8	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.050	5.00	0.017	2000.7	100.0	0.8	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	10.00	0.042	2001.7	**200.2**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	10.00	0.042	2001.0	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	10.00	0.042	2004.9	**200.5**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300035

Lot No.: 010423

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CERTIFIED WEIGHT REPORT

Part Number: 64883
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 6
93 components
Expiration Date: 010426 **Solvent:** Methanol **Lot#** EE584-USQ6
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 200
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

Formulated By:	Eli Aliaga	010423 DATE
Reviewed By:	Pedro L. Rentas	010423 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.100	5.00	0.017	2002.9	200.1	1.6	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.100	5.00	0.017	2008.7	200.7	1.6	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.100	5.00	0.017	2002.2	200.1	1.6	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.100	5.00	0.017	2005.6	200.4	1.6	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.100	5.00	0.017	2003.1	200.2	1.6	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.100	5.00	0.017	2004.6	200.3	1.6	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.1	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.100	5.00	0.017	2000.1	199.9	2.1	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.1	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.100	5.00	0.017	2000.1	199.9	2.1	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.1	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.3	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.1	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.1	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.100	5.00	0.017	2001.4	200.0	2.1	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.100	5.00	0.017	2000.7	199.9	2.1	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.100	5.00	0.017	2000.6	199.9	2.1	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.100	5.00	0.017	2000.8	199.9	2.1	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.100	5.00	0.017	2000.8	199.9	2.1	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.1	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.1	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.100	5.00	0.017	2000.7	199.9	2.1	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.100	5.00	0.017	2001.1	200.0	2.1	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.100	5.00	0.017	2000.8	199.9	2.1	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.100	5.00	0.017	2002.5	200.1	2.1	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.1	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.100	5.00	0.017	2000.5	199.9	2.8	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.1	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.100	5.00	0.017	2000.8	199.9	2.1	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.100	5.00	0.017	2001.0	200.0	2.8	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.100	5.00	0.017	2000.5	199.9	2.1	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.1	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.1	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.100	5.00	0.017	2001.4	200.0	2.1	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.1	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.3	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.100	5.00	0.017	2000.5	199.9	2.3	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.3	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.100	5.00	0.017	2000.5	199.9	2.3	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.3	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.100	5.00	0.017	2000.1	199.9	2.3	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.100	5.00	0.017	2000.0	199.9	2.3	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.100	5.00	0.017	2000.3	199.9	2.3	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.100	5.00	0.017	2000.5	199.9	2.3	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.3	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.3	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.100	5.00	0.017	2001.3	200.0	2.3	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.3	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.3	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.100	5.00	0.017	2000.6	199.9	2.3	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.3	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.100	5.00	0.017	2000.1	199.9	2.3	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.100	5.00	0.017	2000.5	199.9	2.3	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.3	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.3	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.100	5.00	0.017	2000.4	199.9	2.3	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.100	5.00	0.017	2000.2	199.9	2.3	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.100	5.00	0.017	2000.5	199.9	2.3	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.100	5.00	0.017	1000.1	**99.9**	1.0	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.100	5.00	0.017	1001.1	**100.0**	1.0	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.100	5.00	0.017	2020.6	201.9	2.3	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.100	5.00	0.017	2000.6	199.9	2.3	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.100	5.00	0.017	2000.5	199.9	2.3	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.100	5.00	0.017	2000.5	199.9	2.3	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.100	5.00	0.017	2000.2	199.9	2.3	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.100	5.00	0.017	2000.7	199.9	2.3	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.100	5.00	0.017	2004.0	200.3	1.6	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.100	5.00	0.017	2000.4	199.9	1.6	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.100	5.00	0.017	2001.9	200.0	1.6	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.100	5.00	0.017	2001.4	200.0	1.6	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.100	5.00	0.017	2001.9	200.0	1.6	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.100	5.00	0.017	2001.9	200.0	1.6	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.100	5.00	0.017	2003.3	200.2	1.6	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.100	5.00	0.017	2007.4	200.6	1.6	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.100	5.00	0.017	2004.8	200.3	1.6	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.100	5.00	0.017	2010.3	200.9	1.6	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.100	5.00	0.017	2004.8	200.3	1.6	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.100	5.00	0.017	2007.0	200.6	1.6	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.100	5.00	0.017	2003.1	200.2	1.6	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.100	5.00	0.017	2017.7	201.6	1.6	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.100	5.00	0.017	2009.0	200.8	1.6	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.100	5.00	0.017	2009.6	200.8	1.6	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.100	5.00	0.017	2015.3	201.4	1.6	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.100	5.00	0.017	2000.3	199.9	1.6	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.100	5.00	0.017	2000.3	199.9	1.6	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.100	5.00	0.017	2000.4	199.9	1.6	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.100	5.00	0.017	2000.2	199.9	1.6	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.100	5.00	0.017	2005.9	200.5	1.6	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.100	5.00	0.017	2003.1	200.2	1.6	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.100	5.00	0.017	2000.7	199.9	1.6	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	5.00	0.017	2001.7	**200.0**	1.6	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	5.00	0.017	2001.0	**200.0**	1.6	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	5.00	0.017	2004.9	**200.3**	1.6	462-06-6	N/A	orl-rat 4399mg/kg

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300036

Lot No.: 010423

ABSOLUTE STANDARDS, Inc.
(800)-368-1131
www.absolutestandards.com

ISO 9001 QS Registered
ISO 17025 QS Accredited

CERTIFIED WEIGHT REPORT

Part Number: 64884
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 7
93 components
Expiration Date: 010426
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 400
NIST Test ID#: 6UTB

Solvent: Methanol **Lot#** EE584-USQ5

		Eli Aliaga	010423
Formulated By:	Eli Aliaga		DATE
		Pedro Rentas	010423
Reviewed By:	Pedro L. Rentas		DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.001 Flask Uncertainty

	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	(0001)	MKBJ4871V	NA	NA	NA	400	99	0.2	NA	0.02022	0.02027	401.1	2.6	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	(0003)	012014	NA	NA	NA	400	98	0.2	NA	0.02042	0.02050	401.5	2.6	208-96-8	N/A	N/A
3.	Biphenyl	(0556)	MKCK9837	NA	NA	NA	400	99.89	0.2	NA	0.02004	0.02005	400.3	2.6	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	(0059)	VCVMA-LJ	NA	NA	NA	400	98	0.2	NA	0.02042	0.02042	399.9	2.5	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	(0116)	11125LW	NA	NA	NA	400	99	0.2	NA	0.02022	0.02024	400.5	2.6	132-64-9	N/A	N/A
6.	Fluorene	(0184)	STBJ6017	NA	NA	NA	400	98	0.2	NA	0.02042	0.02047	400.9	2.6	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.8	4.6	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.20	10.00	2000.1	400	NA	NA	0.042	NA	NA	399.7	4.6	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.8	4.6	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.20	10.00	2000.1	400	NA	NA	0.042	NA	NA	399.7	4.6	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	4.6	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	5.0	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	4.6	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.7	4.6	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.20	10.00	2001.4	400	NA	NA	0.042	NA	NA	400.0	4.6	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.20	10.00	2000.7	400	NA	NA	0.042	NA	NA	399.9	4.6	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.20	10.00	2000.6	400	NA	NA	0.042	NA	NA	399.8	4.6	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.20	10.00	2000.8	400	NA	NA	0.042	NA	NA	399.9	4.6	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.20	10.00	2000.8	400	NA	NA	0.042	NA	NA	399.9	4.6	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	4.6	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.7	4.6	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.20	10.00	2000.7	400	NA	NA	0.042	NA	NA	399.9	4.6	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.20	10.00	2001.1	400	NA	NA	0.042	NA	NA	399.9	4.6	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.20	10.00	2000.8	400	NA	NA	0.042	NA	NA	399.9	4.6	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.20	10.00	2002.5	400	NA	NA	0.042	NA	NA	400.2	4.6	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.8	4.6	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.20	10.00	2000.5	400	NA	NA	0.042	NA	NA	399.8	6.0	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	4.6	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.20	10.00	2000.8	400	NA	NA	0.042	NA	NA	399.9	4.6	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.20	10.00	2001.0	400	NA	NA	0.042	NA	NA	399.9	6.0	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.20	10.00	2000.5	400	NA	NA	0.042	NA	NA	399.8	4.6	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	4.6	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.8	4.6	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.20	10.00	2001.4	400	NA	NA	0.042	NA	NA	400.0	4.6	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	4.6	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	5.0	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.20	10.00	2000.5	400	NA	NA	0.042	NA	NA	399.8	5.0	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	5.0	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.20	10.00	2000.5	400	NA	NA	0.042	NA	NA	399.8	5.0	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	5.0	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.20	10.00	2000.1	400	NA	NA	0.042	NA	NA	399.7	5.0	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.20	10.00	2000.0	400	NA	NA	0.042	NA	NA	399.7	5.0	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.20	10.00	2000.3	400	NA	NA	0.042	NA	NA	399.8	5.0	87-61-6	N/A	ipr-mus 1390mg/kg
44.	1,2,4-Trichlorobenzene	93538	010323	0.20	10.00	2000.5	400	NA	NA	0.042	NA	NA	399.8	5.0	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	5.0	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.7	5.0	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.20	10.00	2001.3	400	NA	NA	0.042	NA	NA	400.0	5.0	100-42-5	100 ppm	orl-rat 5000mg/kg

48.	tert-Butyl benzene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	5.0	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.7	5.0	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.20	10.00	2000.6	400	NA	NA	0.042	NA	NA	399.8	5.0	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	5.0	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.20	10.00	2000.1	400	NA	NA	0.042	NA	NA	399.7	5.0	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.20	10.00	2000.5	400	NA	NA	0.042	NA	NA	399.8	5.0	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	5.0	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.7	5.0	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	5.0	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.20	10.00	2000.2	400	NA	NA	0.042	NA	NA	399.8	5.0	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.20	10.00	2000.5	400	NA	NA	0.042	NA	NA	399.8	5.0	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.20	10.00	1000.1	**200**	NA	NA	0.042	NA	NA	**199.9**	2.3	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.20	10.00	1001.1	**200**	NA	NA	0.042	NA	NA	**200.1**	2.3	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97269	020720	0.02	1.00	20207.0	400	NA	NA	0.004	NA	NA	403.8	3.7	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97269	020720	0.02	1.00	20006.9	400	NA	NA	0.004	NA	NA	399.9	3.7	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97269	020720	0.02	1.00	20005.9	400	NA	NA	0.004	NA	NA	399.8	3.7	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97269	020720	0.02	1.00	20005.9	400	NA	NA	0.004	NA	NA	399.8	3.7	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97269	020720	0.02	1.00	20003.3	400	NA	NA	0.004	NA	NA	399.8	3.7	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97269	020720	0.02	1.00	20007.9	400	NA	NA	0.004	NA	NA	399.9	3.7	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.20	10.00	2004.0	400	NA	NA	0.042	NA	NA	400.5	3.7	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.20	10.00	2000.4	400	NA	NA	0.042	NA	NA	399.8	3.7	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.20	10.00	2001.9	400	NA	NA	0.042	NA	NA	400.1	3.7	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.20	10.00	2001.4	400	NA	NA	0.042	NA	NA	400.0	3.7	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.20	10.00	2001.9	400	NA	NA	0.042	NA	NA	400.1	3.7	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.20	10.00	2001.9	400	NA	NA	0.042	NA	NA	400.1	3.7	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.20	10.00	2003.3	400	NA	NA	0.042	NA	NA	400.4	3.8	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.20	10.00	2007.4	400	NA	NA	0.042	NA	NA	401.2	3.8	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.20	10.00	2004.8	400	NA	NA	0.042	NA	NA	400.7	3.8	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.20	10.00	2010.3	400	NA	NA	0.042	NA	NA	401.8	3.8	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.20	10.00	2004.8	400	NA	NA	0.042	NA	NA	400.7	3.8	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.20	10.00	2007.0	400	NA	NA	0.042	NA	NA	401.1	3.7	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.20	10.00	2003.1	400	NA	NA	0.042	NA	NA	400.3	3.7	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.20	10.00	2017.7	400	NA	NA	0.042	NA	NA	403.3	3.8	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.20	10.00	2009.0	400	NA	NA	0.042	NA	NA	401.5	3.8	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.20	10.00	2009.6	400	NA	NA	0.042	NA	NA	401.6	3.8	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.20	10.00	2015.3	400	NA	NA	0.042	NA	NA	402.8	3.8	75-01-4	N/A	N/A
84.	Acetone	82492	010322	0.02	1.00	20002.3	400	NA	NA	0.004	NA	NA	399.8	3.7	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82492	010322	0.02	1.00	20002.3	400	NA	NA	0.004	NA	NA	399.8	3.7	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82492	010322	0.02	1.00	20003.1	400	NA	NA	0.004	NA	NA	399.8	3.7	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82492	010322	0.02	1.00	20001.2	400	NA	NA	0.004	NA	NA	399.7	3.7	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.20	10.00	2005.9	400	NA	NA	0.042	NA	NA	400.9	3.8	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.20	10.00	2003.1	400	NA	NA	0.042	NA	NA	400.3	3.7	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.20	10.00	2000.7	400	NA	NA	0.042	NA	NA	399.9	3.7	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.10	5.00	2001.7	**200**	NA	NA	0.017	NA	NA	**200.0**	1.6	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.10	5.00	2001.0	**200**	NA	NA	0.017	NA	NA	**200.0**	1.6	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.10	5.00	2004.9	**200**	NA	NA	0.017	NA	NA	**200.3**	1.6	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300037

Lot No.: 120822

ABSOLUTE STANDARDS, Inc.
(800)-368-1131
www.absolutestandards.com

ISO 9001 QS Registered
ISO 17025 QS Accredited

CERTIFIED WEIGHT REPORT

Part Number: 65970
Lot Number: 120822
Description: VOC Calibration Level 1 (1000 ug/mL)
44 components
Expiration Date: 120825
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent:	Lot#
Methanol	EE584-USQ3

5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.001 Flask Uncertainty

		120822
Formulated By:	Benson Chan	DATE
		120822
Reviewed By:	Pedro L. Rentas	DATE

RED = Surrogate; **BLUE = Internal**

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzene	64088	060719	0.250	5.00	0.017	4001.1	1000.5	7.9	71-43-2	1 ppm	orl-rat 4894mg/kg
2. Carbon tetrachloride	64088	060719	0.250	5.00	0.017	4000.8	1000.4	7.9	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
3. Chlorobenzene	64088	060719	0.250	5.00	0.017	4000.7	1000.3	7.9	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
4. Chloroform	64088	060719	0.250	5.00	0.017	4000.7	1000.3	7.9	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
5. 1,2-Dibromoethane	64088	060719	0.250	5.00	0.017	4000.8	1000.4	7.9	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
6. 1,2-Dichlorobenzene	64088	060719	0.250	5.00	0.017	4001.3	1000.5	7.9	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
7. 1,3-Dichlorobenzene	64088	060719	0.250	5.00	0.017	4001.3	1000.5	8.0	541-73-1	N/A	ipr-mus 1062mg/kg
8. 1,4-Dichlorobenzene	64088	060719	0.250	5.00	0.017	4000.6	1000.3	7.9	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
9. 1,1-Dichloroethane	64088	060719	0.250	5.00	0.017	4001.0	1000.4	7.9	75-34-3	100 ppm	orl-rat 725mg/kg
10. 1,2-Dichloroethane	64088	060719	0.250	5.00	0.017	4001.0	1000.4	7.9	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
11. 1,1-Dichloroethene	64088	060719	0.250	5.00	0.017	4001.3	1000.5	7.9	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
12. cis-1,2-Dichloroethene	64088	060719	0.250	5.00	0.017	4001.3	1000.5	7.9	156-59-2	N/A	N/A
13. trans-1,2-Dichloroethene	64088	060719	0.250	5.00	0.017	4001.3	1000.5	8.0	156-60-5	N/A	orl-rat 1235mg/kg
14. 1,4-Dioxane	64088	060719	0.250	5.00	0.017	4000.3	1000.2	7.9	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
15. Ethyl benzene	64088	060719	0.250	5.00	0.017	4001.4	1000.5	7.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
16. Isopropylbenzene	64088	060719	0.250	5.00	0.017	4001.3	1000.5	7.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
17. Methyl tert-butyl ether (MTBE)	64088	060719	0.250	5.00	0.017	4000.4	1000.3	7.9	1634-04-4	N/A	orl-rat 4g/kg
18. 2-Methylnaphthalene	64088	060719	0.250	5.00	0.017	4000.4	1000.3	8.0	91-57-6	N/A	orl-rat 1630mg/kg
19. Naphthalene	64088	060719	0.250	5.00	0.017	4000.3	1000.2	7.9	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
20. 1,1,1,2-Tetrachloroethane	64088	060719	0.250	5.00	0.017	4000.5	1000.3	7.9	630-20-6	N/A	orl-rat 670mg/kg
21. 1,1,2,2-Tetrachloroethane	64088	060719	0.250	5.00	0.017	4000.5	1000.3	7.9	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
22. Tetrachloroethene	64088	060719	0.250	5.00	0.017	4000.8	1000.4	7.9	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
23. Toluene	64088	060719	0.250	5.00	0.017	4001.4	1000.5	7.9	108-88-3	200 ppm	orl-rat 5000mg/kg
24. 1,2,3-Trichlorobenzene	64088	060719	0.250	5.00	0.017	4000.4	1000.3	7.9	87-61-6	N/A	ipr-mus 1390mg/kg
25. 1,2,4-Trichlorobenzene	64088	060719	0.250	5.00	0.017	4016.8	1004.4	8.0	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
26. 1,1,1-Trichloroethane	64088	060719	0.250	5.00	0.017	4000.8	1000.4	7.9	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
27. 1,1,2-Trichloroethane	64088	060719	0.250	5.00	0.017	4001.2	1000.5	8.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
28. Trichloroethene	64088	060719	0.250	5.00	0.017	4000.8	1000.4	7.9	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
29. 1,2,3-Trichloropropane	64088	060719	0.250	5.00	0.017	4000.3	1000.2	7.9	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
30. 1,1,2-Trichlorotrifluoroethane	64088	060719	0.250	5.00	0.017	4001.3	1000.5	7.9	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
31. 1,2,4-Trimethylbenzene	64088	060719	0.250	5.00	0.017	4000.3	1000.3	7.9	95-63-6	N/A	orl-rat 5g/kg
32. 1,3,5-Trimethylbenzene	64088	060719	0.250	5.00	0.017	4000.3	1000.3	8.0	108-67-8	N/A	orl-rat 5000mg/kg
33. o-Xylene	64088	060719	0.250	5.00	0.017	4000.6	1000.3	7.9	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
34. m-Xylene	64088	060719	0.250	5.00	0.017	2000.4	**500.2**	4.0	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
35. p-Xylene	64088	060719	0.250	5.00	0.017	2001.2	**500.4**	4.0	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

36.	1-Methylnaphthalene	32911	042722	0.050	1.00	0.004	20009.3	1000.2	9.0	90-12-0	N/A	orl-rat 1840mg/kg
37.	Isopropanol (2-Propanol)	34951	102820	0.050	1.00	0.004	20004.0	1000.0	9.0	67-63-0	400 ppm (980mg/m3/8H)	orl-rat 5045mg/kg
38.	Vinyl chloride	33591	101922	0.050	1.00	0.004	20053.0	1002.4	9.0	75-01-4	N/A	N/A
39.	**p-Bromofluorobenzene**	64088	060719	0.250	5.00	0.017	4001.3	**1000.5**	7.9	460-00-4	N/A	orl-rat 2700mg/kg
40.	**1,2-Dichloroethane-d4**	64088	060719	0.250	5.00	0.017	4000.7	**1000.3**	7.9	17060-07-0	N/A	orl-mus 625mg/kg
41.	**Toluene-d8**	64088	060719	0.250	5.00	0.017	4000.6	**1000.3**	7.9	2037-26-5	200 ppm	orl-rat 5000mg/kg
42.	**Chlorobenzene-d5**	22013	020122	0.100	2.00	0.017	2000.7	**200.0**	3.5	3114-55-4	N/A	orl-rat 1110mg/kg
43.	**1,4-Dichlorobenzene-d4**	22013	020122	0.100	2.00	0.017	2000.4	**200.0**	3.5	3855-82-1	N/A	orl-rat 500mg/kg
44.	**Fluorobenzene**	22013	020122	0.100	2.00	0.017	2001.1	**200.1**	3.5	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300038

Lot No.: 120822

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CERTIFIED WEIGHT REPORT

Part Number: 65971
Lot Number: 120822
Description: VOC Calibration Level 2 (2000 ug/mL)
44 components
Expiration Date: 120825 **Solvent:** **Lot#**
Recommended Storage: Freezer (0 ºC) Methanol EE584-USQ3
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.001 Flask Uncertainty

		120822
Formulated By:	Benson Chan	DATE
		120822
Reviewed By:	Pedro L. Rentas	DATE

RED = Surrogate; BLUE = Internal

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	CAS#	SDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1.	Benzene	64088	060719	0.500	10.00	0.042	4001.1	2000.5	18.7	71-43-2	1 ppm	orl-rat 4894mg/kg
2.	Carbon tetrachloride	64088	060719	0.500	10.00	0.042	4000.8	2000.4	18.7	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
3.	Chlorobenzene	64088	060719	0.500	10.00	0.042	4000.7	2000.3	18.7	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
4.	Chloroform	64088	060719	0.500	10.00	0.042	4000.7	2000.3	18.7	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
5.	1,2-Dibromoethane	64088	060719	0.500	10.00	0.042	4000.8	2000.3	18.7	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
6.	1,2-Dichlorobenzene	64088	060719	0.500	10.00	0.042	4001.3	2000.6	18.7	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
7.	1,3-Dichlorobenzene	64088	060719	0.500	10.00	0.042	4001.3	2000.6	18.8	541-73-1	N/A	ipr-mus 1062mg/kg
8.	1,4-Dichlorobenzene	64088	060719	0.500	10.00	0.042	4000.6	2000.3	18.7	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
9.	1,1-Dichloroethane	64088	060719	0.500	10.00	0.042	4001.0	2000.5	18.7	75-34-3	100 ppm	orl-rat 725mg/kg
10.	1,2-Dichloroethane	64088	060719	0.500	10.00	0.042	4001.0	2000.4	18.7	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
11.	1,1-Dichloroethene	64088	060719	0.500	10.00	0.042	4001.3	2000.6	18.7	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
12.	cis-1,2-Dichloroethene	64088	060719	0.500	10.00	0.042	4001.3	2000.6	18.7	156-59-2	N/A	N/A
13.	trans-1,2-Dichloroethene	64088	060719	0.500	10.00	0.042	4001.3	2000.6	18.8	156-60-5	N/A	orl-rat 1235mg/kg
14.	1,4-Dioxane	64088	060719	0.500	10.00	0.042	4000.3	2000.1	18.7	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
15.	Ethyl benzene	64088	060719	0.500	10.00	0.042	4001.4	2000.6	18.7	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
16.	Isopropylbenzene	64088	060719	0.500	10.00	0.042	4001.3	2000.6	18.7	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
17.	Methyl tert-butyl ether (MTBE)	64088	060719	0.500	10.00	0.042	4000.4	2000.1	18.7	1634-04-4	N/A	orl-rat 4g/kg
18.	2-Methylnaphthalene	64088	060719	0.500	10.00	0.042	4000.4	2000.2	18.8	91-57-6	N/A	orl-rat 1630mg/kg
19.	Naphthalene	64088	060719	0.500	10.00	0.042	4000.3	2000.1	18.7	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
20.	1,1,1,2-Tetrachloroethane	64088	060719	0.500	10.00	0.042	4000.5	2000.2	18.7	630-20-6	N/A	orl-rat 670mg/kg
21.	1,1,2,2-Tetrachloroethane	64088	060719	0.500	10.00	0.042	4000.5	2000.2	18.7	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
22.	Tetrachloroethene	64088	060719	0.500	10.00	0.042	4000.8	2000.3	18.7	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
23.	Toluene	64088	060719	0.500	10.00	0.042	4001.4	2000.6	18.7	108-88-3	200 ppm	orl-rat 5000mg/kg
24.	1,2,3-Trichlorobenzene	64088	060719	0.500	10.00	0.042	4000.4	2000.2	18.7	87-61-6	N/A	ipr-mus 1390mg/kg
25.	1,2,4-Trichlorobenzene	64088	060719	0.500	10.00	0.042	4016.8	2008.4	18.8	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
26.	1,1,1-Trichloroethane	64088	060719	0.500	10.00	0.042	4000.8	2000.3	18.7	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
27.	1,1,2-Trichloroethane	64088	060719	0.500	10.00	0.042	4001.2	2000.5	18.8	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
28.	Trichloroethene	64088	060719	0.500	10.00	0.042	4000.8	2000.4	18.7	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
29.	1,2,3-Trichloropropane	64088	060719	0.500	10.00	0.042	4000.3	2000.1	18.7	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
30.	1,1,2-Trichlorotrifluoroethane	64088	060719	0.500	10.00	0.042	4001.3	2000.6	18.7	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
31.	1,2,4-Trimethylbenzene	64088	060719	0.500	10.00	0.042	4000.3	2000.1	18.8	95-63-6	N/A	orl-rat 5g/kg
32.	1,3,5-Trimethylbenzene	64088	060719	0.500	10.00	0.042	4000.3	2000.1	18.8	108-67-8	N/A	orl-rat 5000mg/kg
33.	o-Xylene	64088	060719	0.500	10.00	0.042	4000.6	2000.3	18.7	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
34.	m-Xylene	64088	060719	0.500	10.00	0.042	2000.4	**1000.2**	9.4	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
35.	p-Xylene	64088	060719	0.500	10.00	0.042	2001.2	**1000.6**	9.4	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

36.	1-Methylnaphthalene	32911	042722	0.100	2.00	0.017	20009.3	2000.5	35.0	90-12-0	N/A	orl-rat 1840mg/kg
37.	Isopropanol (2-Propanol)	34951	102820	0.100	2.00	0.017	20004.0	2000.9	34.9	67-63-0	400 ppm (980mg/m3/8H)	orl-rat 5045mg/kg
38.	Vinyl chloride	33591	101922	0.100	2.00	0.017	20053.0	2004.9	35.0	75-01-4	N/A	N/A
39.	**p-Bromofluorobenzene**	64088	060719	0.500	10.00	0.042	4001.3	**2000.6**	18.7	460-00-4	N/A	orl-rat 2700mg/kg
40.	**1,2-Dichloroethane-d4**	64088	060719	0.500	10.00	0.042	4000.7	**2000.3**	18.7	17060-07-0	N/A	orl-mus 625mg/kg
41.	**Toluene-d8**	64088	060719	0.500	10.00	0.042	4000.6	**2000.2**	18.7	2037-26-5	200 ppm	orl-rat 5000mg/kg
42.	**Chlorobenzene-d5**	22013	020122	0.100	2.00	0.017	2000.7	**200.0**	3.5	3114-55-4	N/A	orl-rat 1110mg/kg
43.	**1,4-Dichlorobenzene-d4**	22013	020122	0.100	2.00	0.017	2000.4	**200.0**	3.5	3855-82-1	N/A	orl-rat 500mg/kg
44.	**Fluorobenzene**	22013	020122	0.100	2.00	0.017	2001.1	**200.1**	3.5	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300039

Lot No.: 010523

ABSOLUTE STANDARDS, Inc.
(800)-368-1131
www.absolutestandards.com

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ISO 17025 QS Accredited

CERTIFIED WEIGHT REPORT

Part Number: 64885
Lot Number: 010523
Description: 8260 VOC 2nd Source Calibration Check
93 components
Expiration Date: 010526 **Solvent:** **Lot#**
Recommended Storage: Freezer (0 ºC) Methanol EE584-USQ6
Nominal Concentration (µg/mL): 100
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Eli Aliaga		010523
Formulated By:	Eli Aliaga	DATE
Pedro Rentas		010523
Reviewed By:	Pedro L. Rentas	DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.050	5.00	0.017	2002.9	100.1	0.8	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.050	5.00	0.017	2008.7	100.4	0.8	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.050	5.00	0.017	2002.2	100.1	0.8	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.050	5.00	0.017	2005.6	100.3	0.8	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.050	5.00	0.017	2003.1	100.2	0.8	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.050	5.00	0.017	2004.6	100.2	0.8	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.0	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.0	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.050	5.00	0.017	2001.4	100.1	1.0	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.050	5.00	0.017	2000.7	100.0	1.0	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.050	5.00	0.017	2000.6	100.0	1.0	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.050	5.00	0.017	2000.7	100.0	1.0	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.050	5.00	0.017	2001.1	100.1	1.0	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.050	5.00	0.017	2002.5	100.1	1.0	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.4	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.0	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.050	5.00	0.017	2001.0	100.0	1.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.0	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.050	5.00	0.017	2001.4	100.1	1.0	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.050	5.00	0.017	2000.0	100.0	1.2	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.050	5.00	0.017	2001.3	100.1	1.2	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.050	5.00	0.017	2000.6	100.0	1.2	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.2	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.050	5.00	0.017	1000.1	**50.0**	0.5	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.050	5.00	0.017	1001.1	**50.1**	0.5	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.050	5.00	0.017	2020.6	101.0	1.2	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.050	5.00	0.017	2000.6	100.0	1.2	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.050	5.00	0.017	2000.2	100.0	1.2	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.050	5.00	0.017	2000.7	100.0	1.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.050	5.00	0.017	2004.0	100.2	0.8	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.050	5.00	0.017	2000.4	100.0	0.8	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.050	5.00	0.017	2001.4	100.1	0.8	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.050	5.00	0.017	2003.3	100.2	0.8	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.050	5.00	0.017	2007.4	100.4	0.8	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.050	5.00	0.017	2004.8	100.2	0.8	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.050	5.00	0.017	2010.3	100.5	0.8	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.050	5.00	0.017	2004.8	100.2	0.8	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.050	5.00	0.017	2007.0	100.3	0.8	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.050	5.00	0.017	2003.1	100.1	0.8	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.050	5.00	0.017	2017.7	100.9	0.8	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.050	5.00	0.017	2009.0	100.4	0.8	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.050	5.00	0.017	2009.6	100.5	0.8	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.050	5.00	0.017	2015.3	100.8	0.8	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.050	5.00	0.017	2000.3	100.0	0.8	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.050	5.00	0.017	2000.3	100.0	0.8	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.050	5.00	0.017	2000.4	100.0	0.8	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.050	5.00	0.017	2000.2	100.0	0.8	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.050	5.00	0.017	2005.9	100.3	0.8	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.050	5.00	0.017	2003.1	100.1	0.8	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.050	5.00	0.017	2000.7	100.0	0.8	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	10.00	0.042	2001.7	**200.2**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	10.00	0.042	2001.0	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	10.00	0.042	2004.9	**200.5**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300089

Lot No.: 010423

ABSOLUTE STANDARDS, Inc.
(800)-368-1131
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ISO 9001 QS Registered
ISO 17025 QS Accredited

CERTIFIED WEIGHT REPORT

Part Number: 64882
Lot Number: 010423
Description: 8260 VOC Primary Calibration Level 5
93 components
Expiration Date: 010426 **Solvent:** Methanol **Lot#** EE584-USQ6
Recommended Storage: Freezer (0 ºC)
Nominal Concentration (µg/mL): 100
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 100.0 0.012 Flask Uncertainty

Formulated By:	Eli Aliaga	010423 DATE
Reviewed By:	Pedro L. Rentas	010423 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	64952	122022	0.050	5.00	0.017	2002.9	100.1	0.8	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	64952	122022	0.050	5.00	0.017	2008.7	100.4	0.8	208-96-8	N/A	N/A
3.	Biphenyl	64952	122022	0.050	5.00	0.017	2002.2	100.1	0.8	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4.	Carbazole	64952	122022	0.050	5.00	0.017	2005.6	100.3	0.8	86-74-8	N/A	ipr-mus 200mg/kg
5.	Dibenzofuran	64952	122022	0.050	5.00	0.017	2003.1	100.2	0.8	132-64-9	N/A	N/A
6.	Fluorene	64952	122022	0.050	5.00	0.017	2004.6	100.2	0.8	86-73-7	N/A	ipr-mus 2 g/kg
7.	Bromodichloromethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	75-27-4	N/A	orl-rat 916mg/kg
8.	Dibromochloromethane	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.0	124-48-1	N/A	orl-rat 848mg/kg
9.	cis-1,2-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	156-59-2	N/A	N/A
10.	trans-1,2-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.0	156-60-5	N/A	orl-rat 1235mg/kg
11.	Methylene chloride	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	75-09-2	500 ppm	orl-rat 820mg/kg
12.	1,1-Dichloroethene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13.	Bromochloromethane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14.	Bromoform	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15.	Carbon tetrachloride	93538	010323	0.050	5.00	0.017	2001.4	100.1	1.0	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16.	Chloroform	93538	010323	0.050	5.00	0.017	2000.7	100.0	1.0	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17.	Dibromomethane	93538	010323	0.050	5.00	0.017	2000.6	100.0	1.0	74-95-3	N/A	orl-rat 108mg/kg
18.	1,1-Dichloroethane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	75-34-3	100 ppm	orl-rat 725mg/kg
19.	2,2-Dichloropropane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	594-20-7	N/A	N/A
20.	Tetrachloroethene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21.	1,1,1-Trichloroethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22.	1,2-Dibromo-3-chloropropane	93538	010323	0.050	5.00	0.017	2000.7	100.0	1.0	96-12-8	0.001 ppm	orl-rat 170mg/kg
23.	1,2-Dibromoethane	93538	010323	0.050	5.00	0.017	2001.1	100.1	1.0	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24.	1,2-Dichloroethane	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25.	1,2-Dichloropropane	93538	010323	0.050	5.00	0.017	2002.5	100.1	1.0	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26.	1,3-Dichloropropane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	142-28-9	N/A	unr-mus 3600mg/kg
27.	1,1-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.4	563-58-6	N/A	N/A
28.	cis-1,3-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.0	10061-01-5	N/A	N/A
29.	trans-1,3-Dichloropropene	93538	010323	0.050	5.00	0.017	2000.8	100.0	1.0	10061-02-6	N/A	N/A
30.	Hexachloro-1,3-butadiene	93538	010323	0.050	5.00	0.017	2001.0	100.0	1.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31.	1,1,1,2-Tetrachloroethane	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.0	630-20-6	N/A	orl-rat 670mg/kg
32.	1,1,2,2-Tetrachloroethane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33.	1,1,2-Trichloroethane	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34.	Trichloroethene	93538	010323	0.050	5.00	0.017	2001.4	100.1	1.0	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35.	1,2,3-Trichloropropane	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.0	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36.	Benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	71-43-2	1 ppm	orl-rat 4894mg/kg
37.	Bromobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	108-86-1	N/A	orl-rat 2699mg/kg
38.	n-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	104-51-8	N/A	N/A
39.	Ethyl benzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40.	p-Isopropyl toluene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	99-87-6	N/A	orl-rat 4750mg/kg
41.	Naphthalene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42.	Toluene	93538	010323	0.050	5.00	0.017	2000.0	100.0	1.2	108-88-3	200 ppm	orl-rat 5000mg/kg
43.	1,2,3-Trichlorobenzene	93538	010323	0.050	5.00	0.017	2000.3	100.0	1.2	87-61-6	N/A	ipr-mus 1390mg/kg

44.	1,2,4-Trichlorobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45.	1,2,4-Trimethylbenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	95-63-6	N/A	orl-rat 5g/kg
46.	1,3,5-Trimethylbenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	010323	0.050	5.00	0.017	2001.3	100.1	1.2	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	010323	0.050	5.00	0.017	2000.6	100.0	1.2	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	010323	0.050	5.00	0.017	2000.1	100.0	1.2	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	010323	0.050	5.00	0.017	2000.4	100.0	1.2	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	010323	0.050	5.00	0.017	2000.2	100.0	1.2	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	010323	0.050	5.00	0.017	2000.5	100.0	1.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	010323	0.050	5.00	0.017	1000.1	**50.0**	0.5	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	010323	0.050	5.00	0.017	1001.1	**50.1**	0.5	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.050	5.00	0.017	2020.6	101.0	1.2	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.050	5.00	0.017	2000.6	100.0	1.2	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.050	5.00	0.017	2000.2	100.0	1.2	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.050	5.00	0.017	2000.7	100.0	1.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	021721	0.050	5.00	0.017	2004.0	100.2	0.8	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	021721	0.050	5.00	0.017	2000.4	100.0	0.8	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	021721	0.050	5.00	0.017	2001.4	100.1	0.8	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	021721	0.050	5.00	0.017	2001.9	100.1	0.8	124-18-5	N/A	N/A
73.	n-Undecane	97235	021721	0.050	5.00	0.017	2003.3	100.2	0.8	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	021721	0.050	5.00	0.017	2007.4	100.4	0.8	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	021721	0.050	5.00	0.017	2004.8	100.2	0.8	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	021721	0.050	5.00	0.017	2010.3	100.5	0.8	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	021721	0.050	5.00	0.017	2004.8	100.2	0.8	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	120122	0.050	5.00	0.017	2007.0	100.3	0.8	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	120122	0.050	5.00	0.017	2003.1	100.1	0.8	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	120122	0.050	5.00	0.017	2017.7	100.9	0.8	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	120122	0.050	5.00	0.017	2009.0	100.4	0.8	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	120122	0.050	5.00	0.017	2009.6	100.5	0.8	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	120122	0.050	5.00	0.017	2015.3	100.8	0.8	75-01-4	N/A	N/A
84.	Acetone	82402	102522	0.050	5.00	0.017	2000.3	100.0	0.8	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	102522	0.050	5.00	0.017	2000.3	100.0	0.8	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	102522	0.050	5.00	0.017	2000.4	100.0	0.8	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	102522	0.050	5.00	0.017	2000.2	100.0	0.8	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	091322	0.050	5.00	0.017	2005.9	100.3	0.8	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	091322	0.050	5.00	0.017	2003.1	100.1	0.8	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	091322	0.050	5.00	0.017	2000.7	100.0	0.8	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Chlorobenzene-d5	22013	122222	0.100	10.00	0.042	2001.7	**200.2**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
92.	1,4-Dichlorobenzene-d4	22013	122222	0.100	10.00	0.042	2001.0	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
93.	Fluorobenzene	22013	122222	0.100	10.00	0.042	2004.9	**200.5**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300299

Lot No.: 051022

Certified Reference Material CRM

2300299 Rec. 4/3/2023 BH

CERTIFIED WEIGHT REPORT

Part Number:	**65785**	**Solvent:**	**Lot#**	
Lot Number:	051022	Methanol	EA899-USQ12	
Description:	VOC Mix Rev. 2.0 Level 1			
	18 components			
Expiration Date:	051025			
Recommended Storage:	Freezer (0 °C)			
Nominal Concentration (µg/mL):	Varied			
NIST Test ID#:	6UTB	5E-05	Balance Uncertainty	
Volume(s) shown below were combined and diluted to (mL):		20.0	0.001	Flask Uncertainty

		051022
Formulated By:	Benson Chan	DATE
		051022
Reviewed By:	Pedro L. Rentas	DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Benzene	65784	051022	0.50	10.00	0.042	40015.2	20009.1	186.7	71-43-2	1 ppm	orl-rat 4894mg/kg
2.	p-Bromofluorobenzene	65784	051022	0.50	10.00	0.042	40016.8	20009.9	186.9	460-00-4	N/A	orl-rat 2700mg/kg
3.	Chloroform	65784	051022	0.50	10.00	0.042	40011.3	20007.1	186.6	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
4.	1,2-Dichloroethane-d4	65784	051022	0.50	10.00	0.042	40010.1	20006.5	186.7	17060-07-0	N/A	orl-mus 625mg/kg
5.	1,1-Dichloroethene	65784	051022	0.50	10.00	0.042	40007.1	20005.0	186.9	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
6.	cis-1,2-Dichloroethene	65784	051022	0.50	10.00	0.042	40010.8	20006.9	186.9	156-59-2	N/A	N/A
7.	trans-1,2-Dichloroethene	65784	051022	0.50	10.00	0.042	40017.6	20010.3	187.3	156-60-5	N/A	orl-rat 1235mg/kg
8.	Ethyl benzene	65784	051022	0.50	10.00	0.042	40016.0	20009.5	186.7	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
9.	Tetrachloroethene	65784	051022	0.50	10.00	0.042	40006.7	20004.8	186.9	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
10.	Toluene	65784	051022	0.50	10.00	0.042	40040.9	20022.0	186.8	108-88-3	200 ppm	orl-rat 5000mg/kg
11.	Toluene-d8	65784	051022	0.50	10.00	0.042	40012.5	20007.7	186.7	2037-26-5	200 ppm	orl-rat 5000mg/kg
12.	Trichloroethene	65784	051022	0.50	10.00	0.042	40015.6	20009.3	186.8	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
13.	m-Xylene	65784	051022	0.50	10.00	0.042	20009.6	10005.5	93.5	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
14.	o-Xylene	65784	051022	0.50	10.00	0.042	40012.1	20007.5	187.3	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
15.	p-Xylene	65784	051022	0.50	10.00	0.042	20020.8	10011.2	93.5	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
16.	Chlorobenzene-d5	22013	020122	0.10	2.00	0.017	2000.7	200.0	3.5	3114-55-4	N/A	orl-rat 1110mg/kg
17.	1,4-Dichlorobenzene-d4	22013	020122	0.10	2.00	0.017	2000.4	200.0	3.5	3855-82-1	N/A	orl-rat 500mg/kg
18.	Fluorobenzene	22013	020122	0.10	2.00	0.017	2001.1	200.1	3.5	462-06-6	N/A	orl-rat 4399mg/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300300

Lot No.: 051022

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

2300300 Rec 5/31/2023 BM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 65786
Lot Number: 051022
Description: VOC Mix Rev. 2.0 Level 2
18 components
Expiration Date: 051025
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent: Methanol **Lot#** EA899-USQ12

Formulated By:	Benson Chan	051022 DATE
Reviewed By:	Pedro L. Rentas	051022 DATE

Volume(s) shown below were combined and diluted to (mL):	20.0	0.001	Flask Uncertainty
		5E-05	Balance Uncertainty

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Benzene	65784	051022	0.25	5.00	0.017	40015.2	10005.6	78.9	71-43-2	1 ppm	orl-rat 4894mg/kg
2.	p-Bromofluorobenzene	65784	051022	0.25	5.00	0.017	40016.8	10005.9	79.1	460-00-4	N/A	orl-rat 2700mg/kg
3.	Chloroform	65784	051022	0.25	5.00	0.017	40011.3	10004.6	78.9	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
4.	1,2-Dichloroethane-d4	65784	051022	0.25	5.00	0.017	40010.1	10004.3	79.0	17060-07-0	N/A	orl-mus 625mg/kg
5.	1,1-Dichloroethene	65784	051022	0.25	5.00	0.017	40007.1	10003.5	79.1	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
6.	cis-1,2-Dichloroethene	65784	051022	0.25	5.00	0.017	40010.8	10004.5	79.1	156-59-2	N/A	N/A
7.	trans-1,2-Dichloroethene	65784	051022	0.25	5.00	0.017	40017.6	10006.1	79.3	156-60-5	N/A	orl-rat 1235mg/kg
8.	Ethyl benzene	65784	051022	0.25	5.00	0.017	40016.0	10005.8	78.9	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
9.	Tetrachloroethene	65784	051022	0.25	5.00	0.017	40006.7	10003.4	79.1	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
10.	Toluene	65784	051022	0.25	5.00	0.017	40040.9	10012.0	79.0	108-88-3	200 ppm	orl-rat 5000mg/kg
11.	Toluene-d8	65784	051022	0.25	5.00	0.017	40012.5	10004.9	79.0	2037-26-5	200 ppm	orl-rat 5000mg/kg
12.	Trichloroethene	65784	051022	0.25	5.00	0.017	40015.6	10005.7	79.0	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
13.	m-Xylene	65784	051022	0.25	5.00	0.017	20009.6	5003.3	39.6	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
14.	o-Xylene	65784	051022	0.25	5.00	0.017	40012.1	10004.8	79.3	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
15.	p-Xylene	65784	051022	0.25	5.00	0.017	20020.8	5006.1	39.6	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
16.	Chlorobenzene-d5	22013	020122	0.10	2.00	0.017	2000.7	200.0	3.5	3114-55-4	N/A	orl-rat 1110mg/kg
17.	1,4-Dichlorobenzene-d4	22013	020122	0.10	2.00	0.017	2000.4	200.0	3.5	3855-82-1	N/A	orl-rat 500mg/kg
18.	Fluorobenzene	22013	020122	0.10	2.00	0.017	2001.1	200.1	3.5	462-06-6	N/A	orl-rat 4399mg/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
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BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2300301

Lot No.: 051022

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

230030 1 Rec 5/21/2023

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 65787
Lot Number: 051022
Description: VOC Mix Rev. 2.0 Level 3
18 components
Expiration Date: 051025
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent: Methanol **Lot#** EA899-USQ12

5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.001 Flask Uncertainty

		051022
Formulated By:	Benson Chan	DATE
		051022
Reviewed By:	Pedro L. Rentas	DATE

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) µg/mL	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzene	65784	051022	0.10	2.00	0.017	40015.2	4002.6	69.8	71-43-2	1 ppm	orl-rat 4894mg/kg
2. p-Bromofluorobenzene	65784	051022	0.10	2.00	0.017	40016.8	4002.8	69.9	460-00-4	N/A	orl-rat 2700mg/kg
3. Chloroform	65784	051022	0.10	2.00	0.017	40011.3	4002.2	69.8	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
4. 1,2-Dichloroethane-d4	65784	051022	0.10	2.00	0.017	40010.1	4002.1	69.8	17060-07-0	N/A	orl-mus 625mg/kg
5. 1,1-Dichloroethene	65784	051022	0.10	2.00	0.017	40007.1	4001.8	69.9	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
6. cis-1,2-Dichloroethene	65784	051022	0.10	2.00	0.017	40010.8	4002.2	69.9	156-59-2	N/A	N/A
7. trans-1,2-Dichloroethene	65784	051022	0.10	2.00	0.017	40017.6	4002.9	69.9	156-60-5	N/A	orl-rat 1235mg/kg
8. Ethyl benzene	65784	051022	0.10	2.00	0.017	40016.0	4002.7	69.8	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
9. Tetrachloroethene	65784	051022	0.10	2.00	0.017	40006.7	4001.8	69.8	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
10. Toluene	65784	051022	0.10	2.00	0.017	40040.9	4005.2	69.9	108-88-3	200 ppm	orl-rat 5000mg/kg
11. Toluene-d8	65784	051022	0.10	2.00	0.017	40012.5	4002.3	69.8	2037-26-5	200 ppm	orl-rat 5000mg/kg
12. Trichloroethene	65784	051022	0.10	2.00	0.017	40015.6	4002.7	69.8	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
13. m-Xylene	65784	051022	0.10	2.00	0.017	20009.6	2001.5	34.9	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
14. o-Xylene	65784	051022	0.10	2.00	0.017	40012.1	4002.3	69.9	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
15. p-Xylene	65784	051022	0.10	2.00	0.017	20020.8	2002.6	35.0	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
16. Chlorobenzene-d5	22013	020122	0.10	2.00	0.017	2000.7	200.0	3.5	3114-55-4	N/A	orl-rat 1110mg/kg
17. 1,4-Dichlorobenzene-d4	22013	020122	0.10	2.00	0.017	2000.4	200.0	3.5	3855-82-1	N/A	orl-rat 500mg/kg
18. Fluorobenzene	22013	020122	0.10	2.00	0.017	2001.1	200.1	3.5	462-06-6	N/A	orl-rat 4399mg/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
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CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2400330

Lot No.: 080924

ABSOLUTE STANDARDS, Inc.
(800)-368-1131
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CERTIFIED WEIGHT REPORT

Part Number: **67838**
Lot Number: 080924
Description: 8260 VOC 2nd Source Calibration Check Rev 1
95 components
Expiration Date: 080927 **Solvent:** **Lot#**
Recommended Storage: Freezer (0 ºC) Methanol EH869-USQ8
Nominal Concentration (µg/mL): 100
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to 100.0 0.021 Flask Uncertainty

Formulated By: Prashant Chauhan	080924 DATE
Reviewed By: Pedro L. Rentas	080924 DATE

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty +/- µg/ml	CAS#	SDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. Acenaphthene	64952	122022	0.050	5.00	0.017	2002.9	100.1	0.8	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	64952	122022	0.050	5.00	0.017	2008.7	100.4	0.8	208-96-8	N/A	N/A
3. Biphenyl	64952	122022	0.050	5.00	0.017	2002.2	100.1	0.8	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4. Carbazole	64952	122022	0.050	5.00	0.017	2005.6	100.3	0.8	86-74-8	N/A	ipr-mus 200mg/kg
5. Dibenzofuran	64952	122022	0.050	5.00	0.017	2003.1	100.1	0.8	132-64-9	N/A	N/A
6. Fluorene	64952	122022	0.050	5.00	0.017	2004.6	100.2	0.8	86-73-7	N/A	ipr-mus 2 g/kg
7. Bromodichloromethane	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	75-27-4	N/A	orl-rat 916mg/kg
8. Dibromochloromethane	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	124-48-1	N/A	orl-rat 848mg/kg
9. cis-1,2-Dichloroethene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.0	156-59-2	N/A	N/A
10. trans-1,2-Dichloroethene	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	156-60-5	N/A	orl-rat 1235mg/kg
11. Methylene chloride	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	75-09-2	500 ppm	orl-rat 820mg/kg
12. 1,1-Dichloroethene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.2	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13. Bromochloromethane	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.0	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14. Bromoform	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15. Carbon tetrachloride	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.0	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16. Chloroform	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17. Dibromomethane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	74-95-3	N/A	orl-rat 108mg/kg
18. 1,1-Dichloroethane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	75-34-3	100 ppm	orl-rat 725mg/kg
19. 2,2-Dichloropropane	93538	051624	0.050	5.00	0.017	2004.5	100.2	1.0	594-20-7	N/A	N/A
20. Tetrachloroethene	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21. 1,1,1-Trichloroethane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22. 1,2-Dibromo-3-chloropropane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	96-12-8	0.001 ppm	orl-rat 170mg/kg
23. 1,2-Dibromoethane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24. 1,2-Dichloroethane	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.0	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25. 1,2-Dichloropropane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26. 1,3-Dichloropropane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	142-28-9	N/A	unr-mus 3600mg/kg
27. 1,1-Dichloropropene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.4	563-58-6	N/A	N/A
28. cis-1,3-Dichloropropene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	10061-01-5	N/A	N/A
29. trans-1,3-Dichloropropene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	10061-02-6	N/A	N/A
30. Hexachloro-1,3-butadiene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31. 1,1,1,2-Tetrachloroethane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	630-20-6	N/A	orl-rat 670mg/kg
32. 1,1,2,2-Tetrachloroethane	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.0	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33. 1,1,2-Trichloroethane	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34. Trichloroethene	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35. 1,2,3-Trichloropropane	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.0	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36. Benzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	71-43-2	1 ppm	orl-rat 4894mg/kg
37. Bromobenzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	108-86-1	N/A	orl-rat 2699mg/kg
38. n-Butyl benzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	104-51-8	N/A	N/A
39. Ethyl benzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40. p-Isopropyl toluene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.2	99-87-6	N/A	orl-rat 4750mg/kg
41. Naphthalene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42. Toluene	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.2	108-88-3	200 ppm	orl-rat 5000mg/kg
43. 1,2,3-Trichlorobenzene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.2	87-61-6	N/A	ipr-mus 1390mg/kg
44. 1,2,4-Trichlorobenzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45. 1,2,4-Trimethylbenzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	95-63-6	N/A	orl-rat 5g/kg

46.	1,3,5-Trimethylbenzene	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.2	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	051624	0.050	5.00	0.017	2002.9	100.1	1.2	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	051624	0.050	5.00	0.017	2000.6	100.0	1.2	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	051624	0.050	5.00	0.017	2000.8	100.0	1.2	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	051624	0.050	5.00	0.017	2000.3	100.0	1.2	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	051624	0.050	5.00	0.017	2000.5	100.0	1.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	051624	0.050	5.00	0.017	999.8	**50.0**	0.5	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	051624	0.050	5.00	0.017	1000.1	**50.0**	0.5	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.050	5.00	0.017	2020.6	101.0	1.2	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.050	5.00	0.017	2000.6	100.0	1.2	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.050	5.00	0.017	2000.2	100.0	1.2	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.050	5.00	0.017	2000.7	100.0	1.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	061124	0.050	5.00	0.017	2001.7	100.1	0.8	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	061124	0.050	5.00	0.017	2001.5	100.0	0.8	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	061124	0.050	5.00	0.017	2000.8	100.0	0.8	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	061124	0.050	5.00	0.017	2000.6	100.0	0.8	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	061124	0.050	5.00	0.017	2001.4	100.0	0.8	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	061124	0.050	5.00	0.017	2001.7	100.1	0.8	124-18-5	N/A	N/A
73.	n-Undecane	97235	061124	0.050	5.00	0.017	2001.3	100.0	0.8	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	061124	0.050	5.00	0.017	2001.7	100.1	0.8	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	061124	0.050	5.00	0.017	2001.4	100.0	0.8	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	061124	0.050	5.00	0.017	2001.0	100.0	0.8	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	061124	0.050	5.00	0.017	2001.1	100.0	0.8	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	052424	0.050	5.00	0.017	2009.3	100.4	0.8	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	052424	0.050	5.00	0.017	2003.1	100.1	0.8	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	052424	0.050	5.00	0.017	2005.5	100.2	0.8	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	052424	0.050	5.00	0.017	2017.6	100.9	0.8	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	052424	0.050	5.00	0.017	2009.7	100.5	0.8	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	052424	0.050	5.00	0.017	2006.0	100.3	0.8	75-01-4	N/A	N/A
84.	Acetone	82402	022224	0.050	5.00	0.017	2000.5	100.0	0.8	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	022224	0.050	5.00	0.017	2000.8	100.0	0.8	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	022224	0.050	5.00	0.017	2001.1	100.0	0.8	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	022224	0.050	5.00	0.017	2000.8	100.0	0.8	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	031524	0.050	5.00	0.017	2001.5	100.0	0.8	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	031524	0.050	5.00	0.017	2001.8	100.1	0.8	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	031524	0.050	5.00	0.017	2001.4	100.0	0.8	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Ethanol	90572	053024	0.005	0.50	0.004	20005.0	100.0	1.7	64-17-5	1000 ppm (1900mg/m3/8H)	orl-rat 7060mg/kg
92.	Isopropanol (2-Propanol)	34951	102820	0.005	0.50	0.004	20004.0	100.0	1.7	67-63-0	400 ppm (980mg/m3/8H)	orl-rat 5045mg/kg
93.	Chlorobenzene-d5	22013	080224	0.100	10.00	0.042	2000.6	**200.0**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
94.	1,4-Dichlorobenzene-d4	22013	080224	0.100	10.00	0.042	2001.1	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
95.	Fluorobenzene	22013	080224	0.100	10.00	0.042	2000.8	**200.0**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Vendor: Absolute Standards, Inc.

Lab Standard No.: 2400331

Lot No.: 080924

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CERTIFIED WEIGHT REPORT

Part Number: **67838**
Lot Number: 080924
Description: 8260 VOC 2nd Source Calibration Check Rev 1
95 components
Expiration Date: 080927 **Solvent:** **Lot#**
Recommended Storage: Freezer (0 ºC) Methanol EH869-USQ8
Nominal Concentration (µg/mL): 100
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to 100.0 0.021 Flask Uncertainty

Formulated By:	Prashant Chauhan	080924 DATE
Reviewed By:	Pedro L. Rentas	080924 DATE

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- µg/ml	CAS#	SDS Information (Solvent Safety Info. On Attached pg.) OSHA PEL (TWA)	LD50
1. Acenaphthene	64952	122022	0.050	5.00	0.017	2002.9	100.1	0.8	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	64952	122022	0.050	5.00	0.017	2008.7	100.4	0.8	208-96-8	N/A	N/A
3. Biphenyl	64952	122022	0.050	5.00	0.017	2002.2	100.1	0.8	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
4. Carbazole	64952	122022	0.050	5.00	0.017	2005.6	100.3	0.8	86-74-8	N/A	ipr-mus 200mg/kg
5. Dibenzofuran	64952	122022	0.050	5.00	0.017	2003.1	100.1	0.8	132-64-9	N/A	N/A
6. Fluorene	64952	122022	0.050	5.00	0.017	2004.6	100.2	0.8	86-73-7	N/A	ipr-mus 2 g/kg
7. Bromodichloromethane	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	75-27-4	N/A	orl-rat 916mg/kg
8. Dibromochloromethane	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	124-48-1	N/A	orl-rat 848mg/kg
9. cis-1,2-Dichloroethene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.0	156-59-2	N/A	N/A
10. trans-1,2-Dichloroethene	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	156-60-5	N/A	orl-rat 1235mg/kg
11. Methylene chloride	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	75-09-2	500 ppm	orl-rat 820mg/kg
12. 1,1-Dichloroethene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.2	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
13. Bromochloromethane	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.0	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg
14. Bromoform	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
15. Carbon tetrachloride	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.0	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
16. Chloroform	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
17. Dibromomethane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	74-95-3	N/A	orl-rat 108mg/kg
18. 1,1-Dichloroethane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	75-34-3	100 ppm	orl-rat 725mg/kg
19. 2,2-Dichloropropane	93538	051624	0.050	5.00	0.017	2004.5	100.2	1.0	594-20-7	N/A	N/A
20. Tetrachloroethene	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
21. 1,1,1-Trichloroethane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
22. 1,2-Dibromo-3-chloropropane	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	96-12-8	0.001 ppm	orl-rat 170mg/kg
23. 1,2-Dibromoethane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
24. 1,2-Dichloroethane	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.0	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
25. 1,2-Dichloropropane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
26. 1,3-Dichloropropane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	142-28-9	N/A	unr-mus 3600mg/kg
27. 1,1-Dichloropropene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.4	563-58-6	N/A	N/A
28. cis-1,3-Dichloropropene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	10061-01-5	N/A	N/A
29. trans-1,3-Dichloropropene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	10061-02-6	N/A	N/A
30. Hexachloro-1,3-butadiene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
31. 1,1,1,2-Tetrachloroethane	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.0	630-20-6	N/A	orl-rat 670mg/kg
32. 1,1,2,2-Tetrachloroethane	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.0	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
33. 1,1,2-Trichloroethane	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.0	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
34. Trichloroethene	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.0	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
35. 1,2,3-Trichloropropane	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.0	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
36. Benzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	71-43-2	1 ppm	orl-rat 4894mg/kg
37. Bromobenzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	108-86-1	N/A	orl-rat 2699mg/kg
38. n-Butyl benzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	104-51-8	N/A	N/A
39. Ethyl benzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
40. p-Isopropyl toluene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.2	99-87-6	N/A	orl-rat 4750mg/kg
41. Naphthalene	93538	051624	0.050	5.00	0.017	1999.7	100.0	1.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
42. Toluene	93538	051624	0.050	5.00	0.017	1999.6	100.0	1.2	108-88-3	200 ppm	orl-rat 5000mg/kg
43. 1,2,3-Trichlorobenzene	93538	051624	0.050	5.00	0.017	1999.9	100.0	1.2	87-61-6	N/A	ipr-mus 1390mg/kg
44. 1,2,4-Trichlorobenzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
45. 1,2,4-Trimethylbenzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	95-63-6	N/A	orl-rat 5g/kg

46.	1,3,5-Trimethylbenzene	93538	051624	0.050	5.00	0.017	1999.8	100.0	1.2	108-67-8	N/A	orl-rat 5000mg/kg
47.	Styrene	93538	051624	0.050	5.00	0.017	2002.9	100.1	1.2	100-42-5	100 ppm	orl-rat 5000mg/kg
48.	tert-Butyl benzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	98-06-6	N/A	N/A
49.	sec-Butyl benzene	93538	051624	0.050	5.00	0.017	2000.6	100.0	1.2	135-98-8	N/A	orl-rat 2240mg/kg
50.	Chlorobenzene	93538	051624	0.050	5.00	0.017	2000.8	100.0	1.2	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
51.	2-Chlorotoluene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
52.	4-Chlorotoluene	93538	051624	0.050	5.00	0.017	2000.3	100.0	1.2	106-43-4	N/A	orl-rat 2100mg/kg
53.	1,2-Dichlorobenzene	93538	051624	0.050	5.00	0.017	2000.1	100.0	1.2	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
54.	1,3-Dichlorobenzene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	541-73-1	N/A	ipr-mus 1062mg/kg
55.	1,4-Dichlorobenzene	93538	051624	0.050	5.00	0.017	2000.0	100.0	1.2	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
56.	Isopropylbenzene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
57.	n-Propylbenzene	93538	051624	0.050	5.00	0.017	2000.2	100.0	1.2	103-65-1	N/A	orl-rat 6040mg/kg
58.	o-Xylene	93538	051624	0.050	5.00	0.017	2000.5	100.0	1.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
59.	m-Xylene	93538	051624	0.050	5.00	0.017	999.8	**50.0**	0.5	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
60.	p-Xylene	93538	051624	0.050	5.00	0.017	1000.1	**50.0**	0.5	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
61.	Carbon disulphide	97233	122322	0.050	5.00	0.017	2020.6	101.0	1.2	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
62.	1,4-Dioxane	97233	122322	0.050	5.00	0.017	2000.6	100.0	1.2	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
63.	Hexachloroethane	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
64.	Methyl tert-butyl ether (MTBE)	97233	122322	0.050	5.00	0.017	2000.5	100.0	1.2	1634-04-4	N/A	orl-rat 4g/kg
65.	2-Methylnaphthalene	97233	122322	0.050	5.00	0.017	2000.2	100.0	1.2	91-57-6	N/A	orl-rat 1630mg/kg
66.	1,1,2-Trichlorotrifluoroethane	97233	122322	0.050	5.00	0.017	2000.7	100.0	1.2	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
67.	n-Pentane	97235	061124	0.050	5.00	0.017	2001.7	100.1	0.8	109-66-0	600 ppm(1800mg/m3/8H)	ivn-mus 446mg/kg
68.	n-Hexane	97235	061124	0.050	5.00	0.017	2001.5	100.0	0.8	110-54-3	50 ppm(180mg/m3/8H)	orl-rat 28710mg/kg
69.	n-Heptane	97235	061124	0.050	5.00	0.017	2000.8	100.0	0.8	142-82-5	400 ppm(1600mg/m3/8H)	ivn-mus 222mg/kg
70.	n-Octane	97235	061124	0.050	5.00	0.017	2000.6	100.0	0.8	111-65-9	300 ppm(1450mg/m3/8H)	N/A
71.	n-Nonane	97235	061124	0.050	5.00	0.017	2001.4	100.0	0.8	111-84-2	200 ppm (1050mg/m3/8H)	ivn-mus 218mg/kg
72.	n-Decane	97235	061124	0.050	5.00	0.017	2001.7	100.1	0.8	124-18-5	N/A	N/A
73.	n-Undecane	97235	061124	0.050	5.00	0.017	2001.3	100.0	0.8	1120-21-4	N/A	ivn-mus 517mg/kg
74.	n-Dodecane	97235	061124	0.050	5.00	0.017	2001.7	100.1	0.8	112-40-3	N/A	ivn-mus 3494mg/kg
75.	n-Tridecane	97235	061124	0.050	5.00	0.017	2001.4	100.0	0.8	629-50-5	N/A	ivn-mus 1161mg/kg
76.	n-Tetradecane	97235	061124	0.050	5.00	0.017	2001.0	100.0	0.8	629-59-4	N/A	N/A
77.	n-Pentadecane	97235	061124	0.050	5.00	0.017	2001.1	100.0	0.8	629-62-9	N/A	ivn-mus 3494mg/kg
78.	Bromomethane	30058	052424	0.050	5.00	0.017	2009.3	100.4	0.8	74-83-9	5 ppm (20mg/m3/8H) (skin)	orl-rat 214mg/kg
79.	Chloroethane	30058	052424	0.050	5.00	0.017	2003.1	100.1	0.8	75-00-3	1000 ppm (2600mg/m3/8H)	N/A
80.	Chloromethane	30058	052424	0.050	5.00	0.017	2005.5	100.2	0.8	74-87-3	100 ppm	orl-rat 1800mg/kg
81.	Dichlorodifluoromethane	30058	052424	0.050	5.00	0.017	2017.6	100.9	0.8	75-71-8	1000 ppm (4950mg/m3/8H)	N/A
82.	Trichlorofluoromethane	30058	052424	0.050	5.00	0.017	2009.7	100.5	0.8	75-69-4	1000 ppm (5600mg/m3/8H)	ipr-mus 1743mg/kg
83.	Vinyl chloride	30058	052424	0.050	5.00	0.017	2006.0	100.3	0.8	75-01-4	N/A	N/A
84.	Acetone	82402	022224	0.050	5.00	0.017	2000.5	100.0	0.8	67-64-1	750 ppm	orl-rat 5800mg/kg
85.	2-Butanone (Methyl ethyl ketone)	82402	022224	0.050	5.00	0.017	2000.8	100.0	0.8	78-93-3	200 ppm (590mg/m3/8H)	orl-rat 2737mg/kg
86.	2-Hexanone	82402	022224	0.050	5.00	0.017	2001.1	100.0	0.8	591-78-6	100 ppm (410mg/m3/8H)	orl-rat 2590mg/kg
87.	4-Methyl-2-pentanone (MIBK)	82402	022224	0.050	5.00	0.017	2000.8	100.0	0.8	108-10-1	100 ppm (410mg/m3/8H)	orl-rat 2080mg/kg
88.	p-Bromofluorobenzene	20002	031524	0.050	5.00	0.017	2001.5	100.0	0.8	460-00-4	N/A	orl-rat 2700mg/kg
89.	1,2-Dichloroethane-d4	20002	031524	0.050	5.00	0.017	2001.8	100.1	0.8	17060-07-0	N/A	orl-mus 625mg/kg
90.	Toluene-d8	20002	031524	0.050	5.00	0.017	2001.4	100.0	0.8	2037-26-5	200 ppm	orl-rat 5000mg/kg
91.	Ethanol	90572	053024	0.005	0.50	0.004	20005.0	100.0	1.7	64-17-5	1000 ppm (1900mg/m3/8H)	orl-rat 7060mg/kg
92.	Isopropanol (2-Propanol)	34951	102820	0.005	0.50	0.004	20004.0	100.0	1.7	67-63-0	400 ppm (980mg/m3/8H)	orl-rat 5045mg/kg
93.	Chlorobenzene-d5	22013	080224	0.100	10.00	0.042	2000.6	**200.0**	1.9	3114-55-4	N/A	orl-rat 1110mg/kg
94.	1,4-Dichlorobenzene-d4	22013	080224	0.100	10.00	0.042	2001.1	**200.1**	1.9	3855-82-1	N/A	orl-rat 500mg/kg
95.	Fluorobenzene	22013	080224	0.100	10.00	0.042	2000.8	**200.0**	1.9	462-06-6	N/A	orl-rat 4399mg/kg

• The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
• Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
• Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
• All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
• Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Working Standard Preparation Summary

526 Underwood Lane
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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Working Standard Preparation Summary

Parent Standard	Amount (ml)	FinalVolume (ml)	Prepared	Expires
Calibration QC				
Standard ID: 2300056 / 8260 Calibration Std, 2.5ng, Working			01/27/2023	01/04/2026
2300029	0.5000	1.00		
Standard ID: 2300057 / 8260 Calibration Std, 5ng, Working			01/27/2023	01/04/2026
2300031	0.5000	1.00		
Standard ID: 2300058 / 8260 Calibration Std, 10ng, Working			01/27/2023	01/04/2026
2300032	0.5000	1.00		
Standard ID: 2300059 / 8260 Calibration Std, 25ng, Working			01/27/2023	01/04/2026
2300033	0.5000	1.00		
Standard ID: 2300060 / 8260 Calibration Std, 50ng, Working			01/27/2023	01/04/2026
2300034	0.5000	1.00		
Standard ID: 2300061 / 8260 Calibration Std, 100ng, Working			01/27/2023	01/04/2026
2300035	0.5000	1.00		
Standard ID: 2300062 / 8260 Calibration Std, 200ng, Working			01/27/2023	01/04/2026
2300036	0.5000	1.00		
Standard ID: 2300063 / 8260 Calibration Std, 500ng, Working			01/27/2023	01/04/2026
2300037	0.5000	1.00		
Standard ID: 2300064 / 8260 Calibration Std, 1000ng, Working			01/27/2023	01/04/2026
2300038	0.5000	1.00		
Standard ID: 2300302 / 8260 Calibration Std, 10000 ng, Working			05/31/2023	05/10/2025
2300299	0.5000	1.00		
Standard ID: 2300303 / 8260 Calibration Std, 5000 ng, Working			05/31/2023	05/10/2025
2300300	0.5000	1.00		
Standard ID: 2300304 / 8260 Calibration Std, 2000 ng, Working			05/31/2023	05/10/2025
2300301	0.5000	1.00		
Sequence/Sample QC				
Standard ID: 2300065 / LCSD/ICV Second Source Working Std, 50ng			01/27/2023	01/05/2026
2300039	0.5000	1.00		
Standard ID: 2400250 / Working (LB, SMP) ISTD/SURR, Sub-Stock			07/08/2024	07/15/2024
2100406	0.1000	2.00		
Standard ID: 2400331 / LCSD/ICV Second Source Working Std, 50ng			08/26/2024	08/09/2027
2400330	0.5000	1.00		
Standard ID: 2400355 / Working (LB, SMP) ISTD/SURR, Sub-Stock			09/03/2024	09/09/2024
2100406	0.1000	2.00		
Standard ID: 2400356 / Working BS ISTD/SURR, Sub-Stock			09/03/2024	09/09/2024
2400355	0.5000	1.00		

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Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Raw Data

526 Underwood Lane
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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Purge Log

Laboratory: Beacon Environmental

Work Order: 0007984 **Matrix:** Air

BEACON ENVIRONMENTAL

Quant File Saved to Job Folder
Data Entered into LIMS

Analysis List:
A_TO-17 PSV BES (ug/m3)

Analysis Sequence

B24I002

Instrument: S System
Sequence Date: 09/03/2024

Calibration ID: BG40016(STD CAL-07/09/2024)

Lab Number	Sample Name	STD ID	ISTD ID	Client	Comments
B24I002-TUN1		2200206			
24I0002-BLK1			2400355		
24I0002-BS1			2400356		
B24I002-ICV1		2400331			
0007984-01	Trip 1		2400355	Maul Foster & Alongi, Inc.	includes petro fractions no TPH
0007984-02	TWA-PSV-01		2400355	Maul Foster & Alongi, Inc.	includes petro fractions no TPH
0007984-03	TWA-PSV-02		2400355	Maul Foster & Alongi, Inc.	includes petro fractions no TPH
0007984-04	TWA-PSV-03		2400355	Maul Foster & Alongi, Inc.	includes petro fractions no TPH
0007984-05	TWA-PSV-04		2400355	Maul Foster & Alongi, Inc.	includes petro fractions no TPH
0007984-06	TWA-PSV-05		2400355	Maul Foster & Alongi, Inc.	includes petro fractions no TPH
0007984-07	TWA-PSV-05-DUP		2400355	Maul Foster & Alongi, Inc.	includes petro fractions no TPH
B24I002-CCB1			2400355		
B24I002-CCV1		2400331			

B24I002: Sample Count: 7

Standard/Description		Prepared	PreparedBy	Expiration
2200206	BFB, Tuning Solution, 2500ug/ml	05/31/2022 15:40	Peter B. Kelly	04/06/2025 00:00
2300089	BS TO17_8260 LCS/CCV Stock, 100ng	02/01/2023 12:38	Peter B. Kelly	01/04/2026 00:00
2400331	LCSD/ICV Second Source Working Std, 50ng	08/26/2024 13:49	Nicole A Reifer	08/09/2027 00:00
2400355	Working (LB, SMP) ISTD/SURR, Sub-Stock	09/03/2024 10:22	Matthew B. Wagener	09/09/2024 00:00
2400356	Working BS ISTD/SURR, Sub-Stock	09/03/2024 10:22	Matthew B. Wagener	09/09/2024 00:00

Printed: 09/03/2024 11:19 am

Analysis List:
A_TO-17 PSV BES (ug/m3)

Analysis Sequence

B24I002

(Continued)

Instrument: S System

Sequence Date: 09/03/2024

Reagent/Syringe ID#	Description	Prepared	PreparedBy	Expiration
2400194	0.5ul Syringe-Kenny-4	NA	NA	NA

BEACON ENVIRONMENTAL

WORK ORDER: 0007984

Client: Maul Foster & Alongi, Inc.
Project: Former Potter Property
Reporting Options: Level4, TIC
Sampler: Beacon Passive Sampler
TAT: 7 Day(s)
Analysis: TO-17 PSV BES (ug/m3), Total Aliphatics C5-C8 (ug/m3), Total Aliphatics C9-C12 (ug/m3), Total Aromatics C9-C10 (ug/m3)
PURGE TIME: One hour

Sample Purge Log

Beacon Passive Sampler

Purge Gas Tank PSI @Start	Date/Time Purge Start	Initials	LabNumber	SampleID	ReceivedDate	TAT 7 Day(s) DueDate	Comments: (e.g. Wet, Discolored, Damaged, QA/QC Requirements)
1300	8/30/24 13:53	AA	0007984-01	Trip 1	8/30/2024	9/11/2024	
			0007984-02	TWA-PSV-01	8/30/2024	9/11/2024	wet
			0007984-03	TWA-PSV-02	8/30/2024	9/11/2024	
			0007984-04	TWA-PSV-03	8/30/2024	9/11/2024	
			0007984-05	TWA-PSV-04	8/30/2024	9/11/2024	wet
			0007984-06	TWA-PSV-05	8/30/2024	9/11/2024	wet
			0007984-07	TWA-PSV-05-DUP	8/30/2024	9/11/2024	wet
Stop:	8/30/24 15:11	AA					

Sample Count: 7

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Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics.GCMS

Sample Raw Data

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Raw Data

Analysis:	TO-17 (Passive)	**Analyzed:**	9/3/2024 4:09:00PM	**FileID:**	S24090307.D	**DF:**	1.00
Lab Number:	0007984-01	**Sample Name:**	Trip 1				

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090307.D
Acq On : 03 Sep 2024 04:09 pm
Operator : KAI
Sample : 0007984-01
Misc : Trip 1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 10:58:58 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

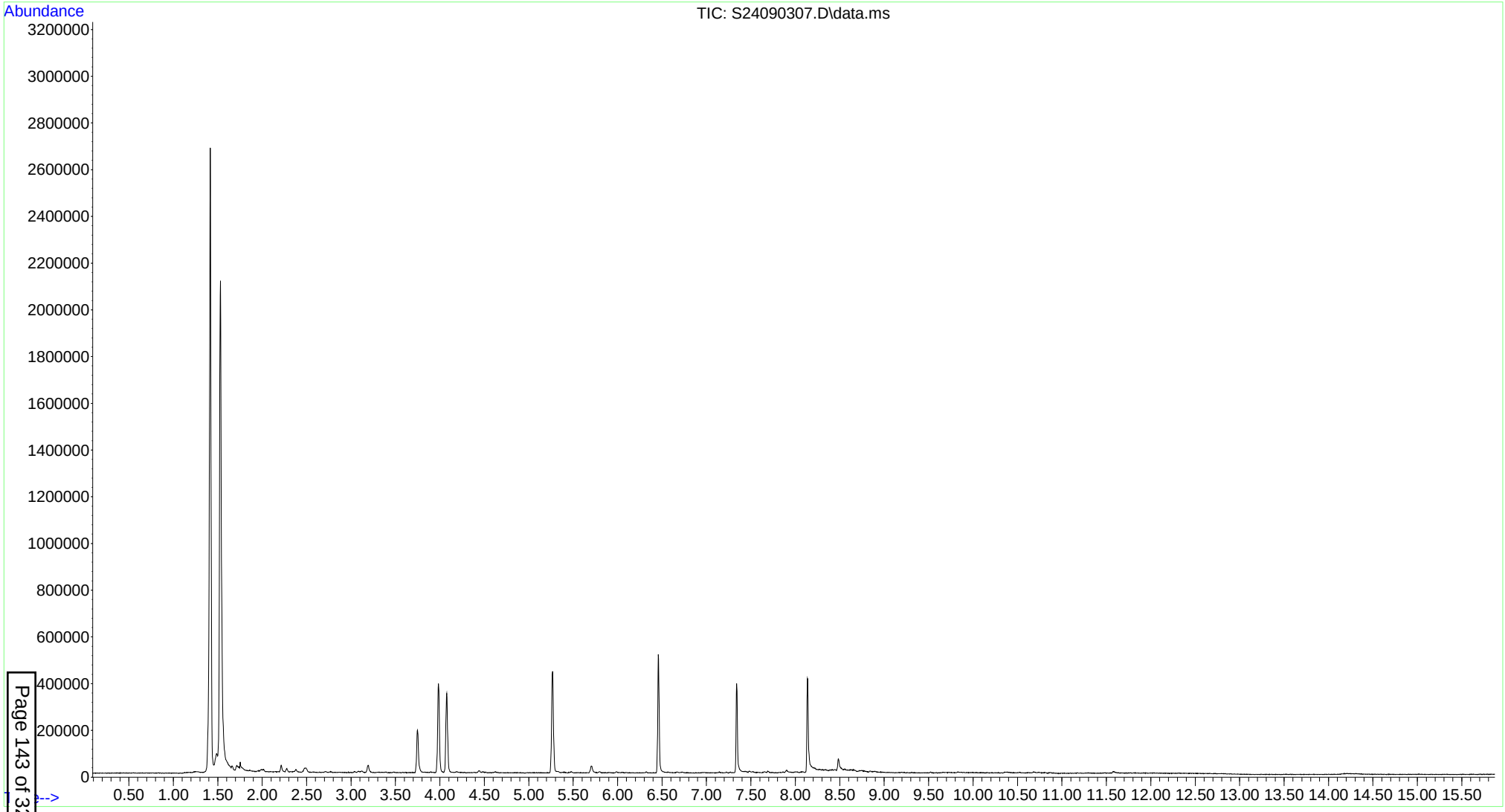
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	241640	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	182657	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	74204	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	99335	112.18	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 112.18%			
40) Toluene-d8	5.268	98	230196	94.32	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 94.32%			
59) Bromofluorobenzene	7.340	174	61814	82.56	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 82.56%			
Target Compounds						Qvalue

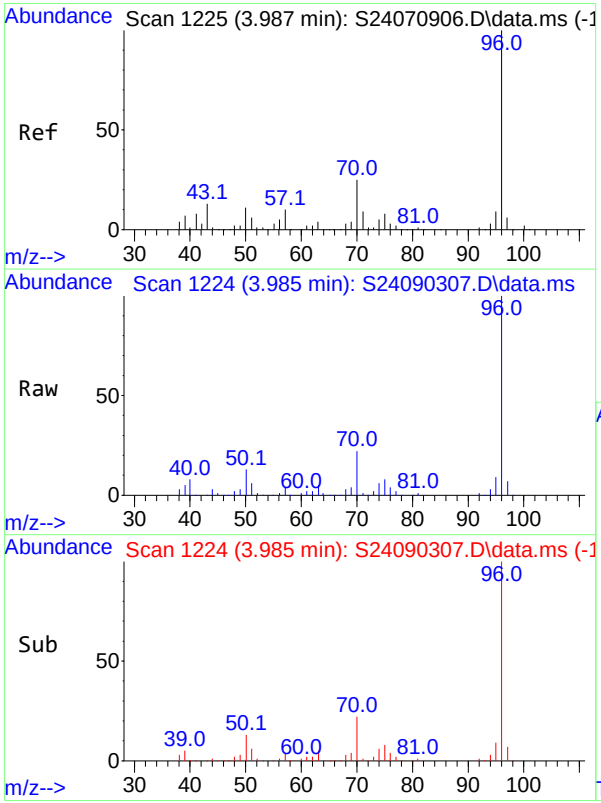
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090307.D
Acq On : 03 Sep 2024 04:09 pm
Operator : KAI
Sample : 0007984-01
Misc : Trip 1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 10:58:58 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

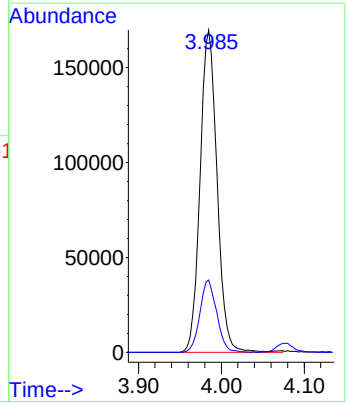


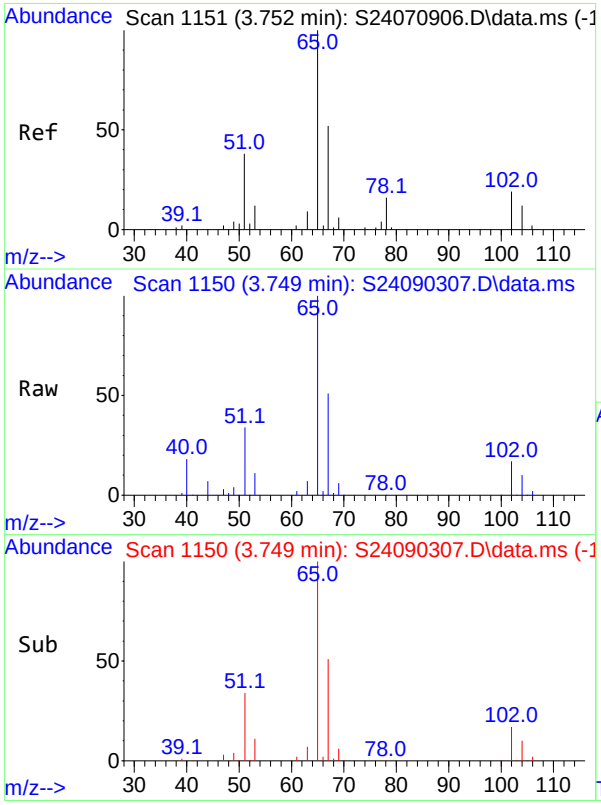


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090307.D
Acq: 03 Sep 2024 04:09 pm

Tgt Ion: 96 Resp: 241640

Ion	Ratio	Lower	Upper
96	100		
70	22.2	0.0	84.6

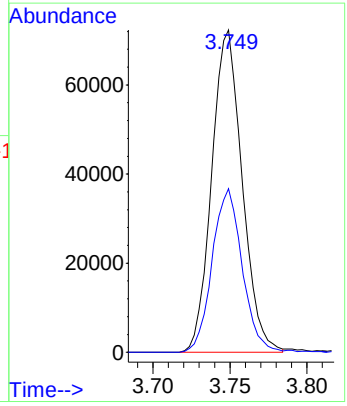


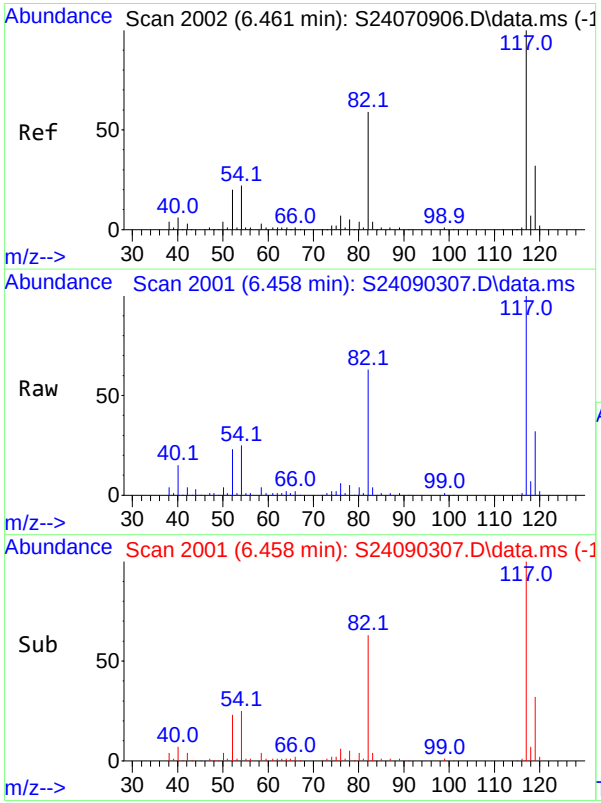


#23
1,2-DCA-d4
Concen: 112.18 ng
RT: 3.749 min Scan# 1150
Delta R.T. -0.003 min
Lab File: S24090307.D
Acq: 03 Sep 2024 04:09 pm

Tgt Ion: 65 Resp: 99335

Ion	Ratio	Lower	Upper
65	100		
67	49.9	41.7	62.5

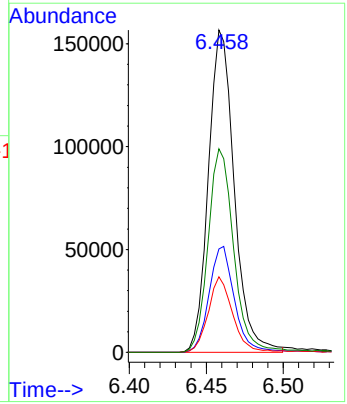


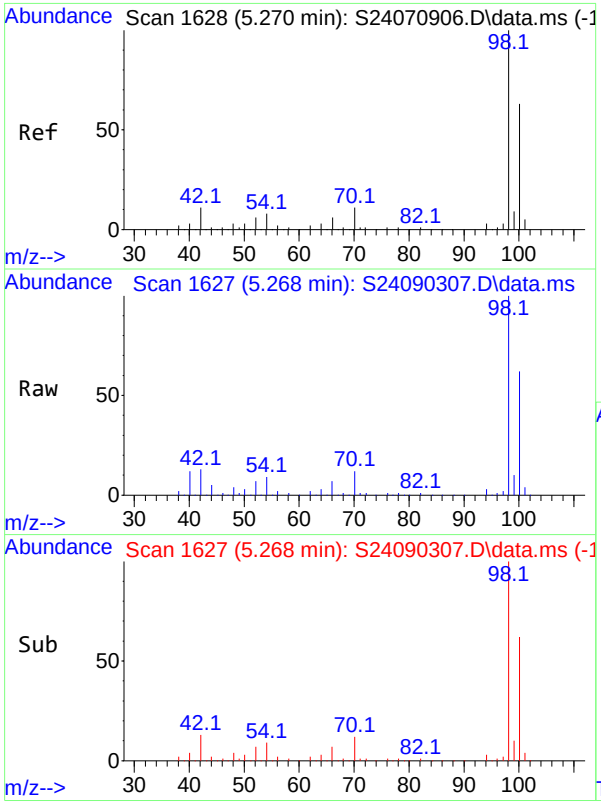


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090307.D
Acq: 03 Sep 2024 04:09 pm

Tgt Ion:117 Resp: 182657

Ion	Ratio	Lower	Upper
117	100		
119	32.3	25.8	38.6
52	22.3	16.7	25.1
82	62.4	47.8	71.8

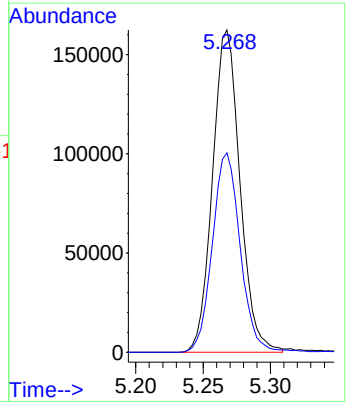


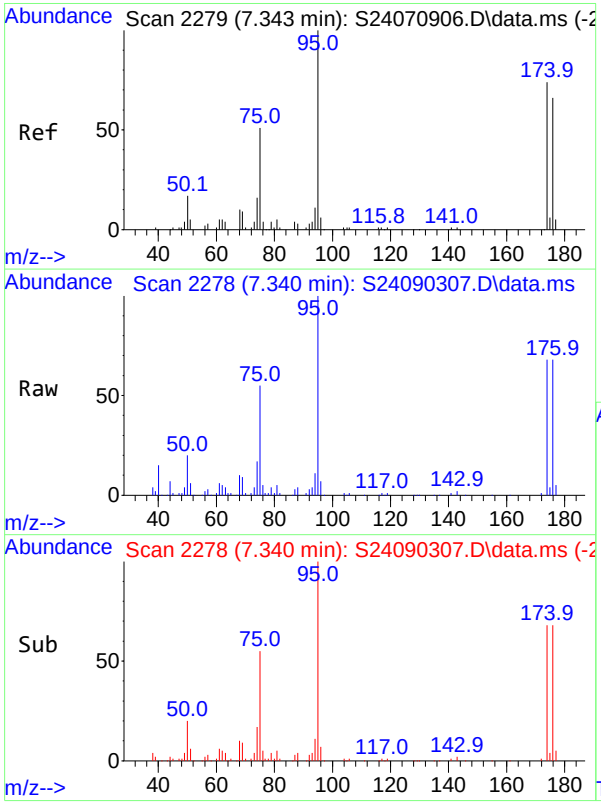


#40
Toluene-d8
Concen: 94.32 ng
RT: 5.268 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090307.D
Acq: 03 Sep 2024 04:09 pm

Tgt Ion: 98 Resp: 230196

Ion	Ratio	Lower	Upper
98	100		
100	62.5	51.1	76.7

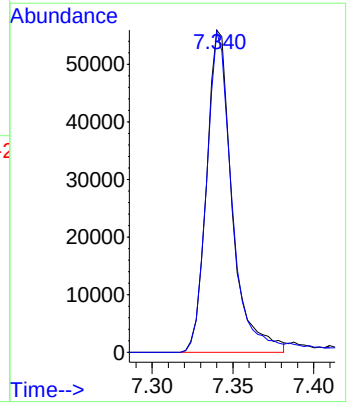


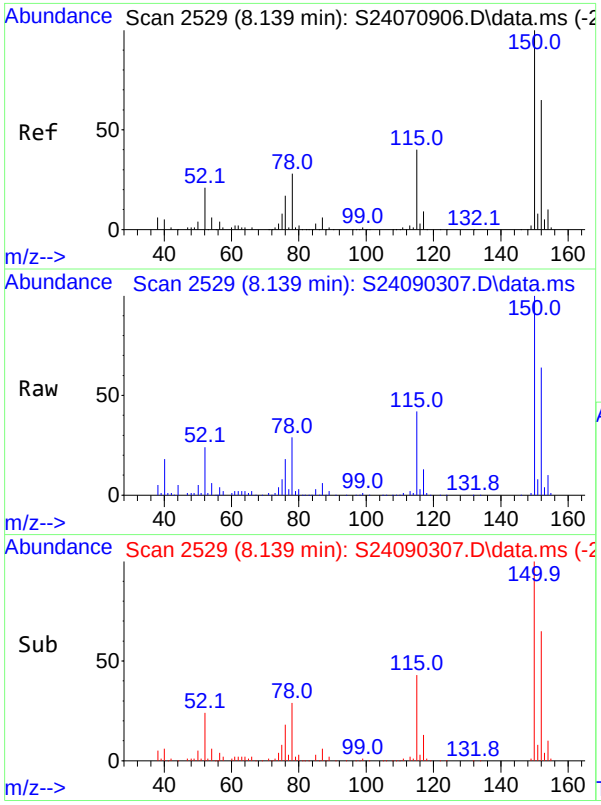


#59
Bromofluorobenzene
Concen: 82.56 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090307.D
Acq: 03 Sep 2024 04:09 pm

Tgt Ion:174 Resp: 61814

Ion	Ratio	Lower	Upper
174	100		
176	98.1	75.0	112.6

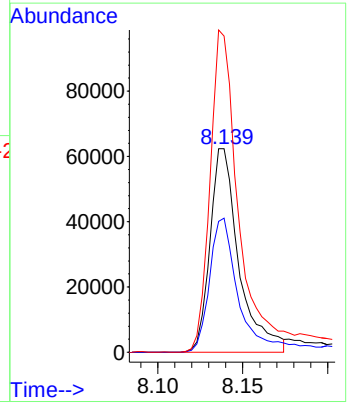




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090307.D
Acq: 03 Sep 2024 04:09 pm

Tgt Ion:152 Resp: 74204

Ion	Ratio	Lower	Upper
152	100		
115	65.1	60.5	90.7
150	155.7	129.6	194.4



BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Raw Data

Analysis:	TO-17 (Passive)	**Analyzed:**	9/3/2024 4:44:00PM	**FileID:**	S24090308.D	**DF:**	1.00
Lab Number:	0007984-02	**Sample Name:**	TWA-PSV-01				

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090308.D
Acq On : 03 Sep 2024 04:44 pm
Operator : KAI
Sample : 0007984-02
Misc : TWA-PSV-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 10:59:07 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

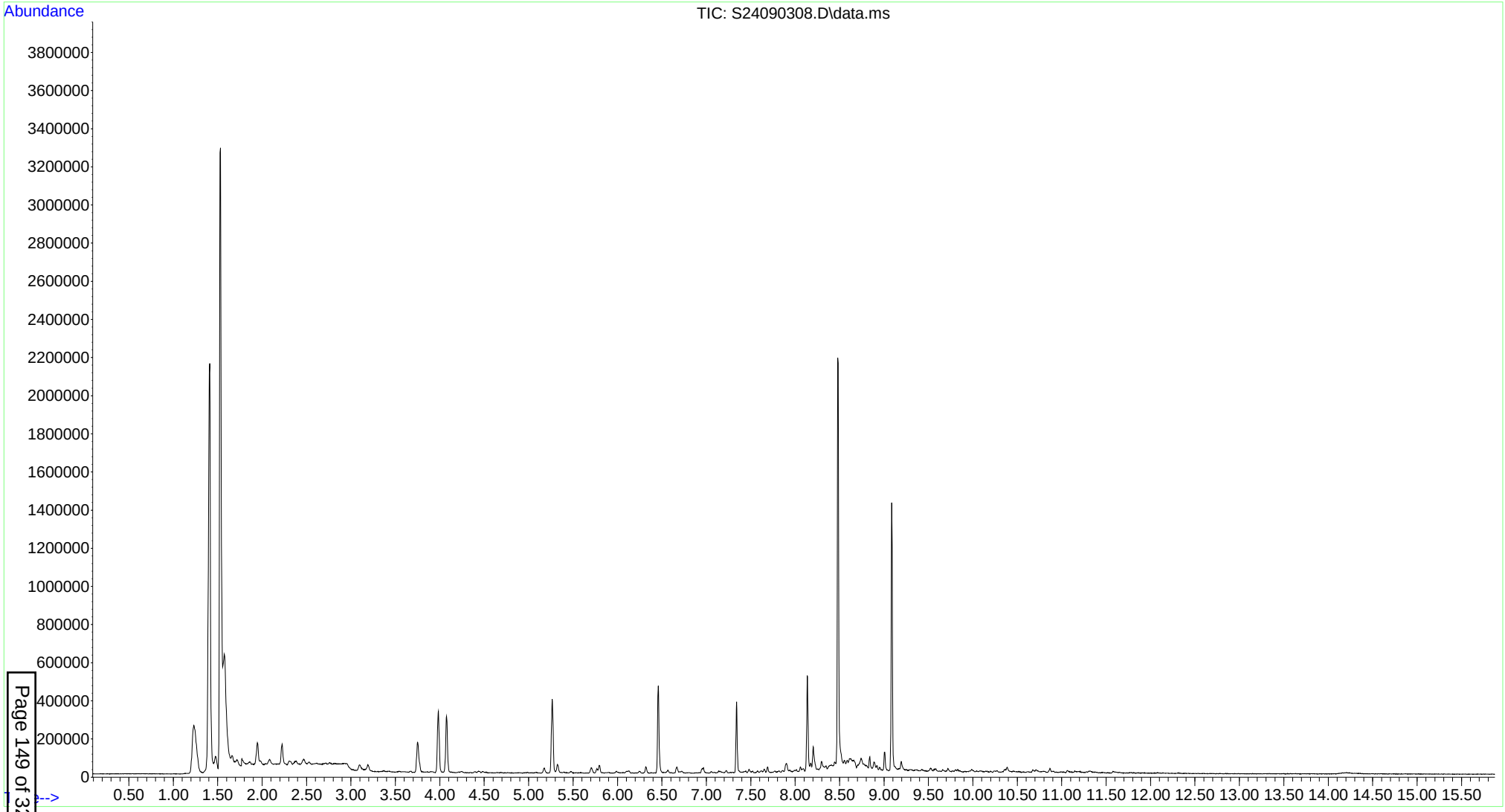
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	198173	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	154899	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.136	152	77294	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	88720	122.17	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 122.17%			
40) Toluene-d8	5.264	98	196335	94.86	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 94.86%			
59) Bromofluorobenzene	7.340	174	54240	85.43	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 85.43%			
Target Compounds						Qvalue

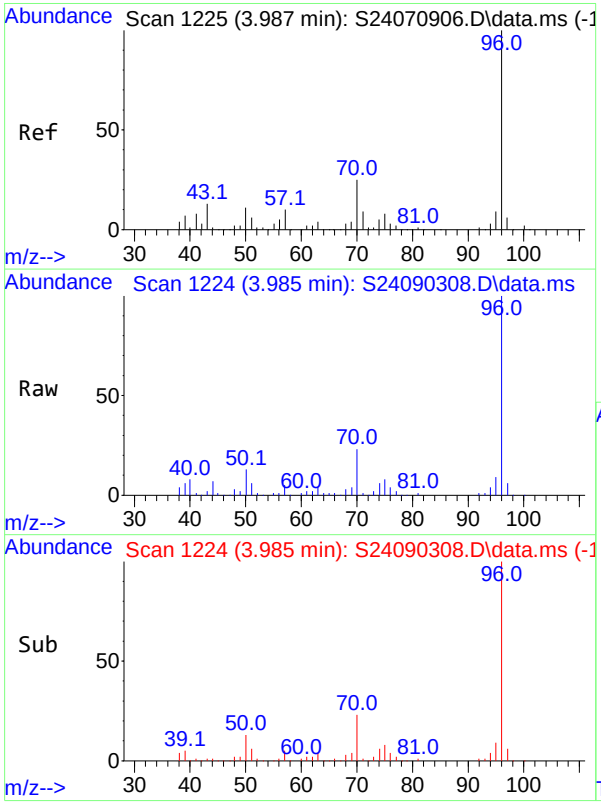
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090308.D
Acq On : 03 Sep 2024 04:44 pm
Operator : KAI
Sample : 0007984-02
Misc : TWA-PSV-01
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Sep 04 10:59:07 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

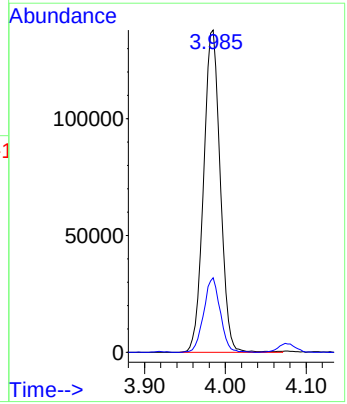


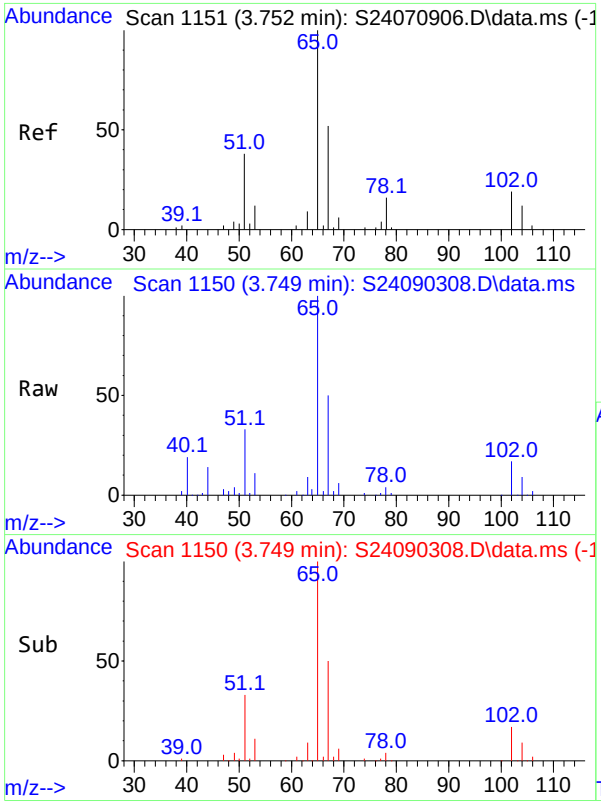


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090308.D
Acq: 03 Sep 2024 04:44 pm

Tgt Ion: 96 Resp: 198173

Ion	Ratio	Lower	Upper
96	100		
70	23.0	0.0	84.6

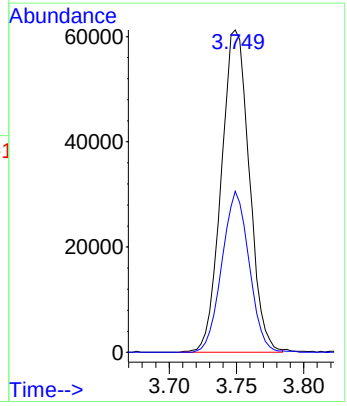


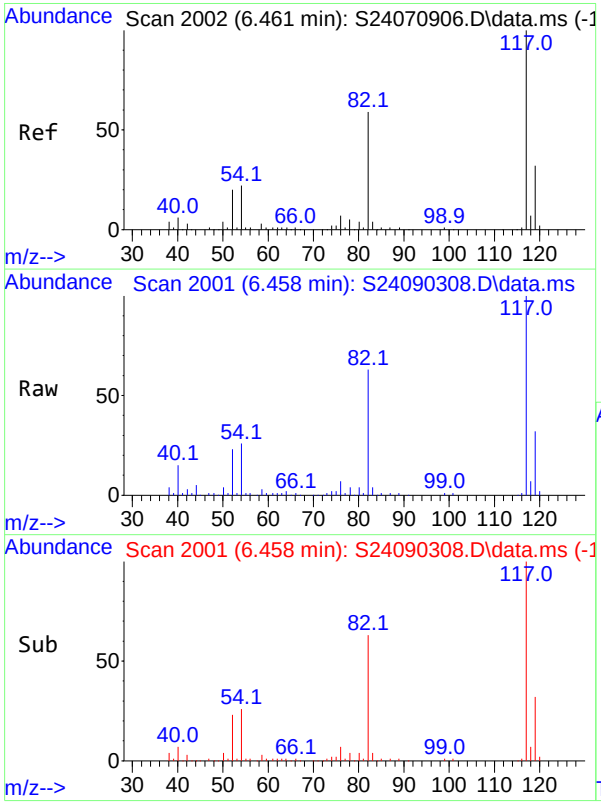


#23
1,2-DCA-d4
Concen: 122.17 ng
RT: 3.749 min Scan# 1150
Delta R.T. -0.003 min
Lab File: S24090308.D
Acq: 03 Sep 2024 04:44 pm

Tgt Ion: 65 Resp: 88720

Ion	Ratio	Lower	Upper
65	100		
67	48.4	41.7	62.5

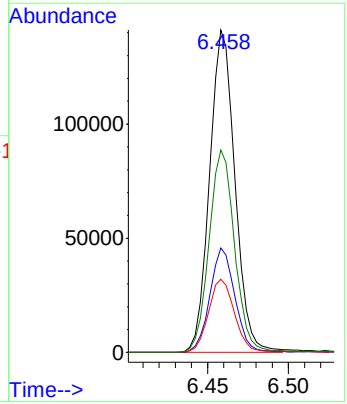


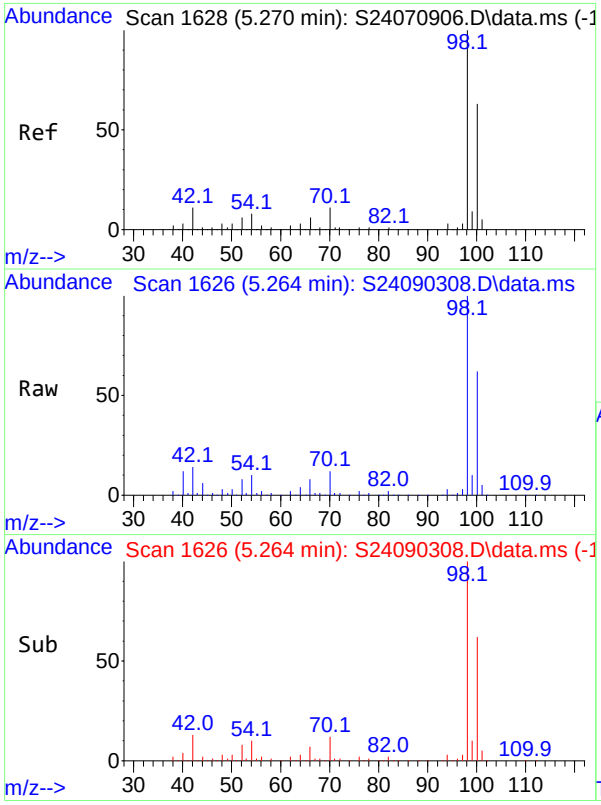


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090308.D
Acq: 03 Sep 2024 04:44 pm

Tgt Ion:117 Resp: 154899

Ion	Ratio	Lower	Upper
117	100		
119	32.0	25.8	38.6
52	23.3	16.7	25.1
82	63.3	47.8	71.8

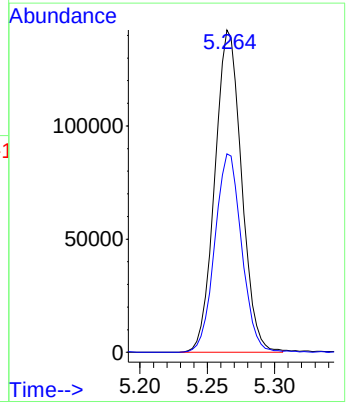


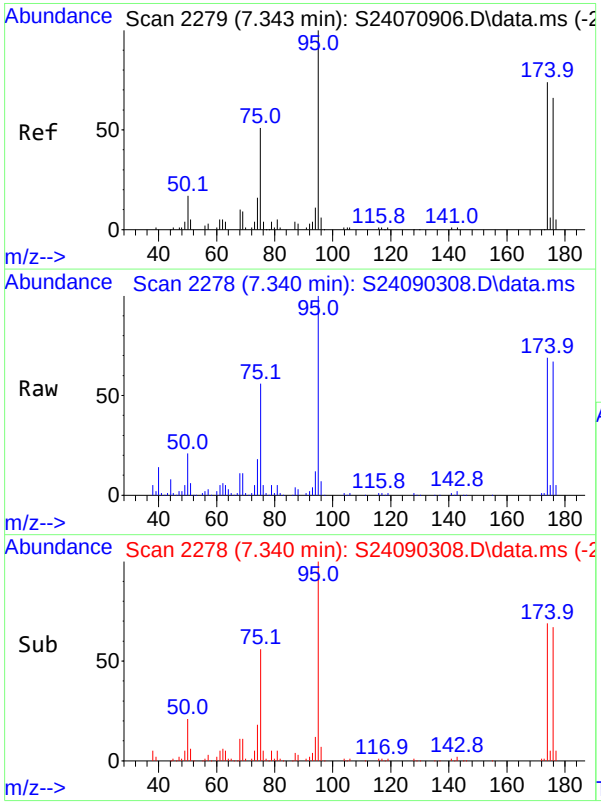


#40
Toluene-d8
Concen: 94.86 ng
RT: 5.264 min Scan# 1626
Delta R.T. -0.006 min
Lab File: S24090308.D
Acq: 03 Sep 2024 04:44 pm

Tgt Ion: 98 Resp: 196335

Ion	Ratio	Lower	Upper
98	100		
100	61.8	51.1	76.7

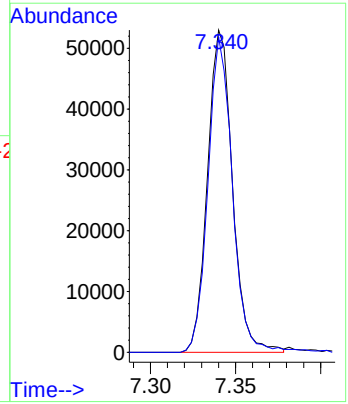


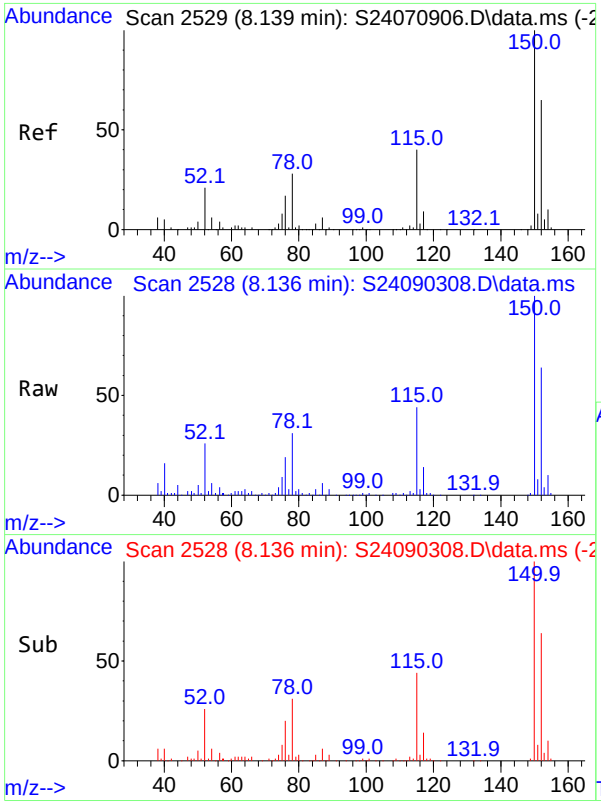


#59
Bromofluorobenzene
Concen: 85.43 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090308.D
Acq: 03 Sep 2024 04:44 pm

Tgt Ion:174 Resp: 54240

Ion	Ratio	Lower	Upper
174	100		
176	95.2	75.0	112.6

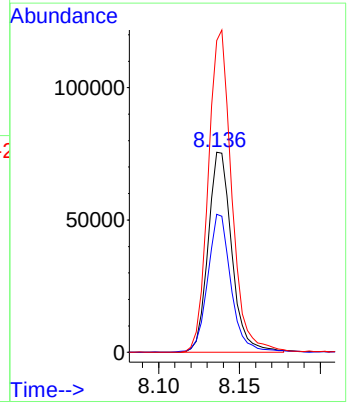




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.136 min Scan# 2528
Delta R.T. -0.003 min
Lab File: S24090308.D
Acq: 03 Sep 2024 04:44 pm

Tgt Ion:152 Resp: 77294

Ion	Ratio	Lower	Upper
152	100		
115	68.1	60.5	90.7
150	159.2	129.6	194.4



BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Raw Data

Analysis:	TO-17 (Passive)	**Analyzed:**	9/3/2024 5:18:00PM	**FileID:**	S24090309.D	**DF:**	1.00
Lab Number:	0007984-03	**Sample Name:**	TWA-PSV-02				

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090309.D
Acq On : 03 Sep 2024 05:18 pm
Operator : KAI
Sample : 0007984-03
Misc : TWA-PSV-02
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 10:59:16 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

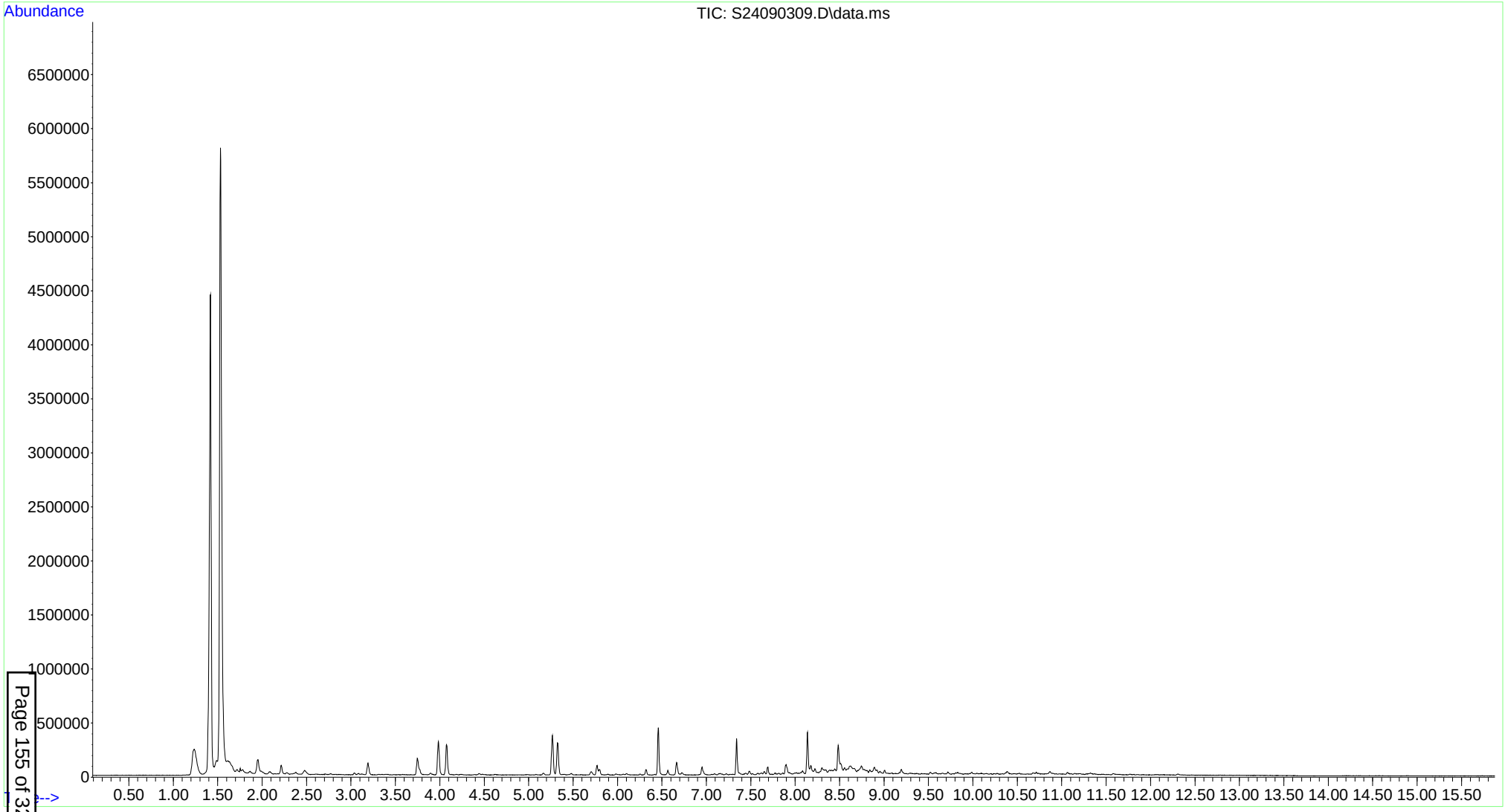
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	195651	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	151324	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	64620	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.746	65	83288	116.17	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 116.17%			
40) Toluene-d8	5.267	98	188842	93.39	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 93.39%			
59) Bromofluorobenzene	7.340	174	49697	80.12	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 80.12%			
Target Compounds						Qvalue
41) Toluene	5.325	92	96592	68.07	ng	98
47) Tetrachloroethene	5.770	131	13731	25.64	ng	98

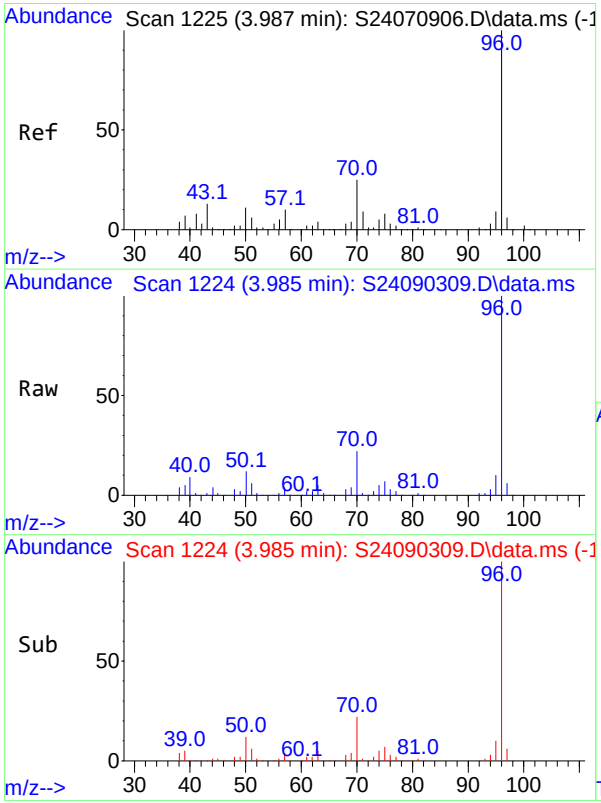
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090309.D
Acq On : 03 Sep 2024 05:18 pm
Operator : KAI
Sample : 0007984-03
Misc : TWA-PSV-02
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 04 10:59:16 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

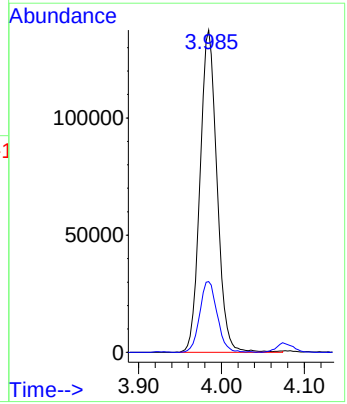


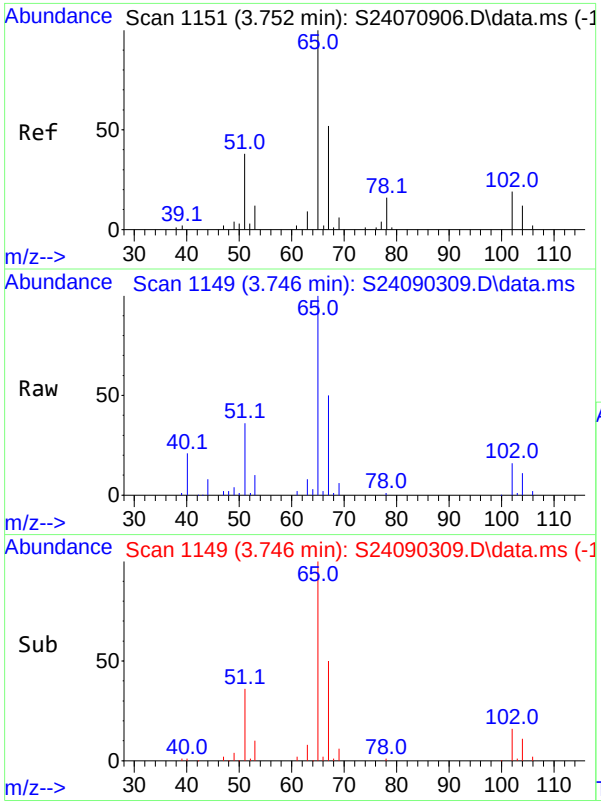


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion: 96 Resp: 195651

Ion	Ratio	Lower	Upper
96	100		
70	22.7	0.0	84.6

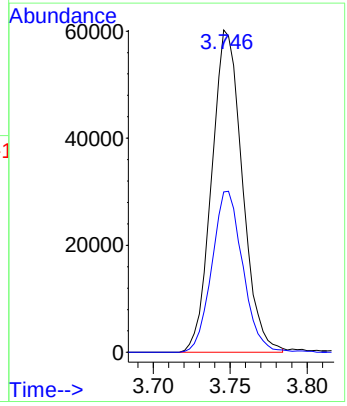


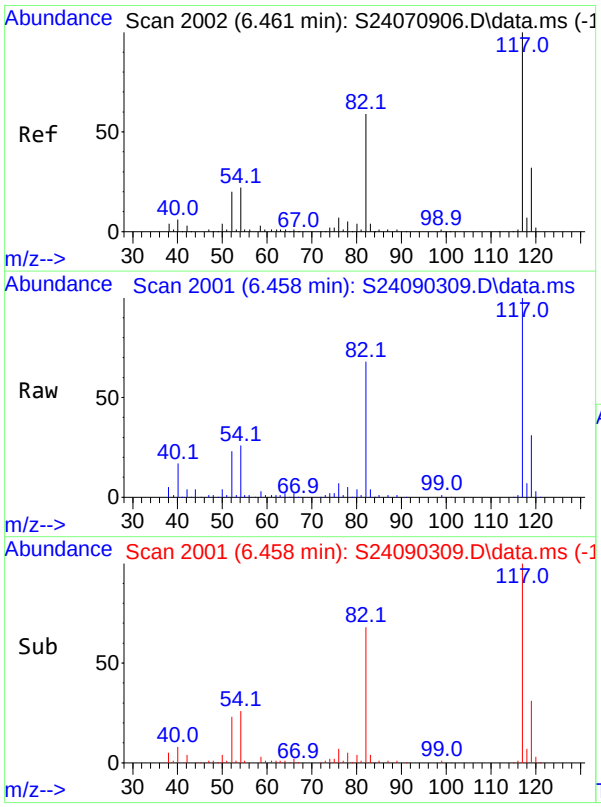


#23
1,2-DCA-d4
Concen: 116.17 ng
RT: 3.746 min Scan# 1149
Delta R.T. -0.006 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion: 65 Resp: 83288

Ion	Ratio	Lower	Upper
65	100		
67	50.2	41.7	62.5

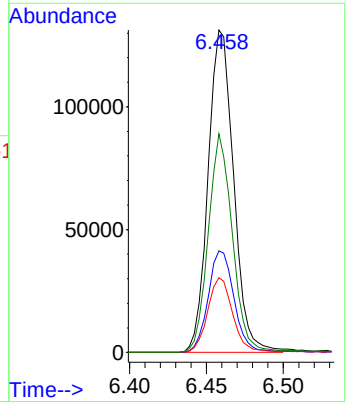


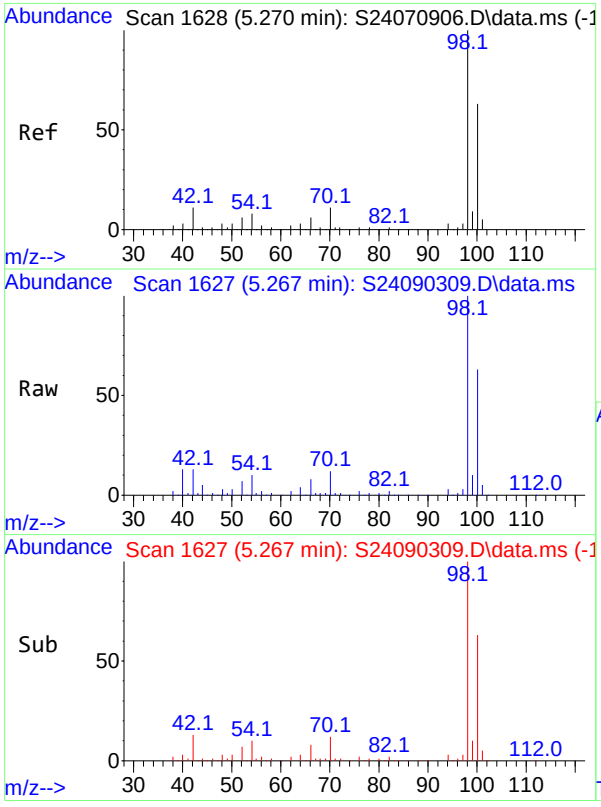


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion:117 Resp: 151324

Ion	Ratio	Lower	Upper
117	100		
119	31.9	25.8	38.6
52	22.8	16.7	25.1
82	63.9	47.8	71.8

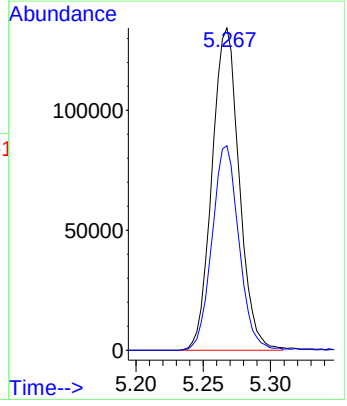


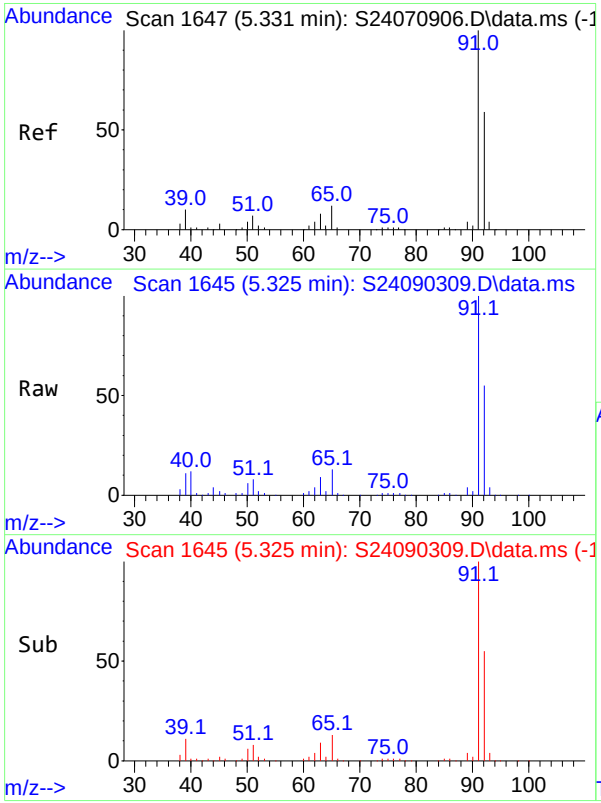


#40
Toluene-d8
Concen: 93.39 ng
RT: 5.267 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion: 98 Resp: 188842

Ion	Ratio	Lower	Upper
98	100		
100	62.6	51.1	76.7

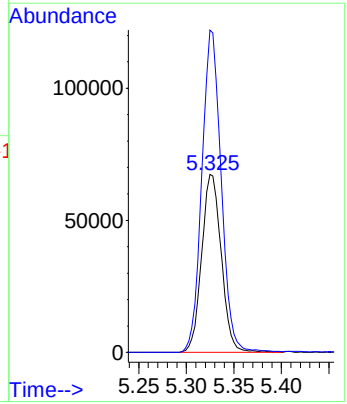


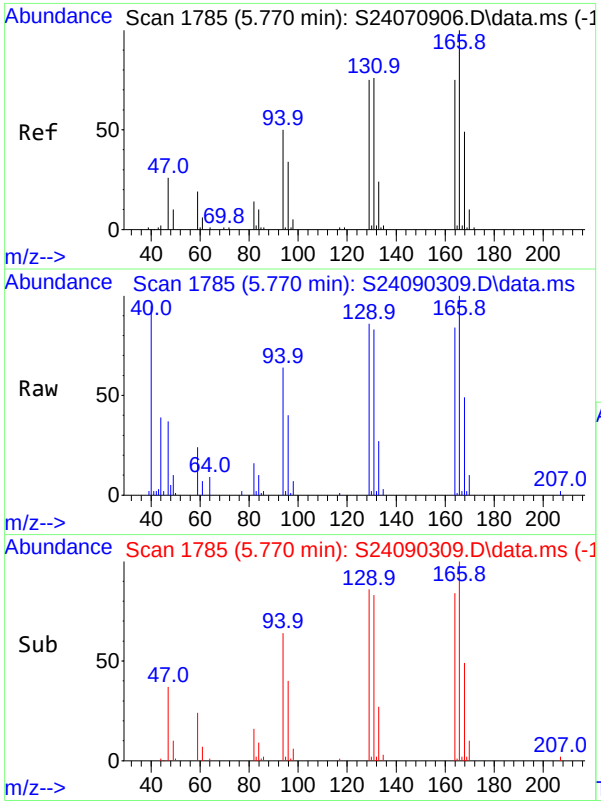


#41
Toluene
Concen: 68.07 ng
RT: 5.325 min Scan# 1645
Delta R.T. -0.006 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion: 92 Resp: 96592

Ion	Ratio	Lower	Upper
92	100		
91	179.8	141.3	211.9

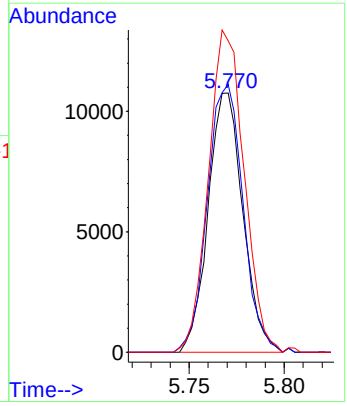


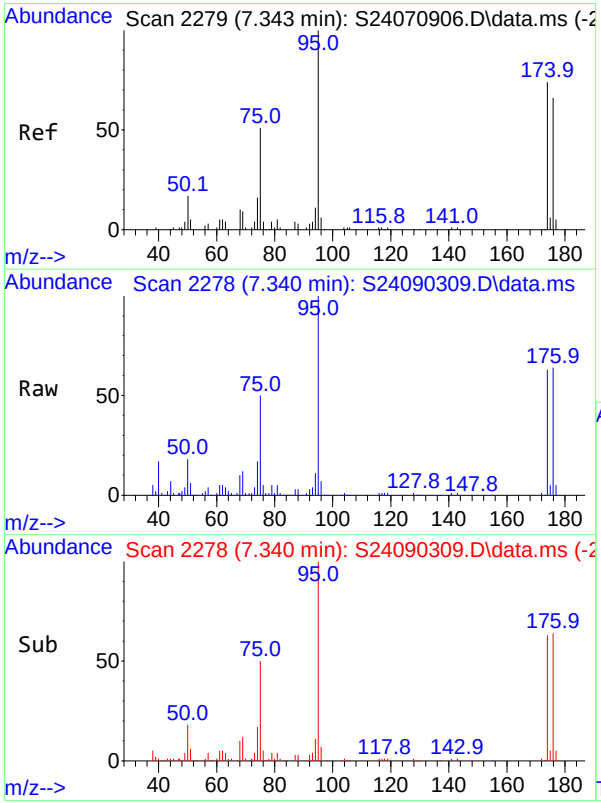


#47
Tetrachloroethene
Concen: 25.64 ng
RT: 5.770 min Scan# 1785
Delta R.T. 0.000 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion:131 Resp: 13731

Ion	Ratio	Lower	Upper
131	100		
129	105.9	82.9	124.3
166	127.5	103.7	155.5

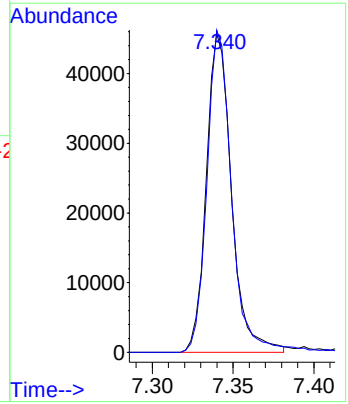


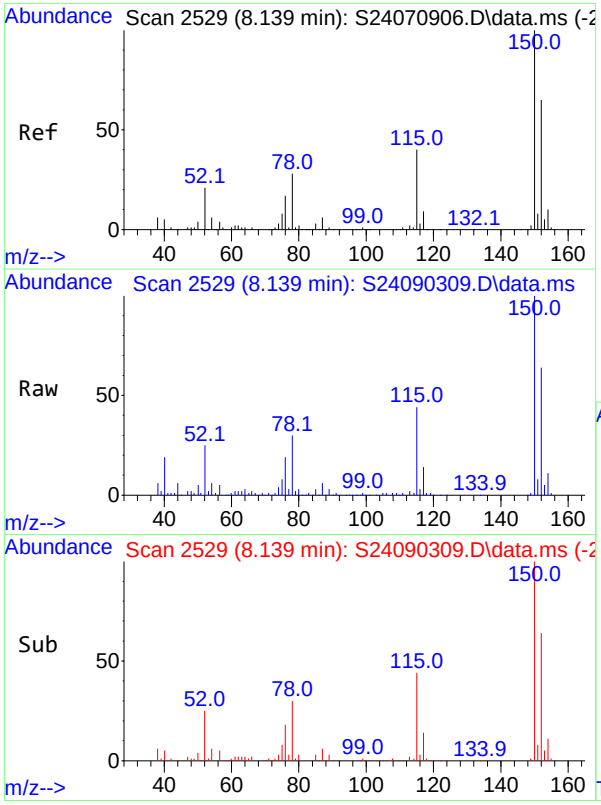


#59
Bromofluorobenzene
Concen: 80.12 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion:174 Resp: 49697

Ion	Ratio	Lower	Upper
174	100		
176	98.0	75.0	112.6

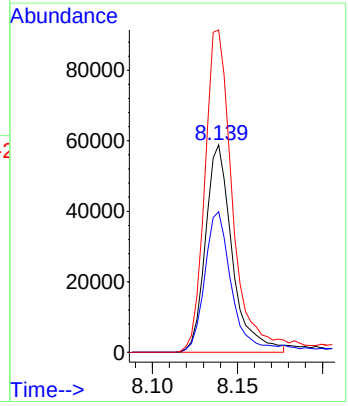




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090309.D
Acq: 03 Sep 2024 05:18 pm

Tgt Ion:152 Resp: 64620

Ion	Ratio	Lower	Upper
152	100		
115	67.7	60.5	90.7
150	159.6	129.6	194.4



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Raw Data

Analysis:	TO-17 (Passive)	**Analyzed:**	9/3/2024 5:54:00PM	**FileID:**	S24090310.D	**DF:**	1.00
Lab Number:	0007984-04	**Sample Name:**	TWA-PSV-03				

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090310.D
Acq On : 03 Sep 2024 05:54 pm
Operator : KAI
Sample : 0007984-04
Misc : TWA-PSV-03
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 04 10:59:25 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

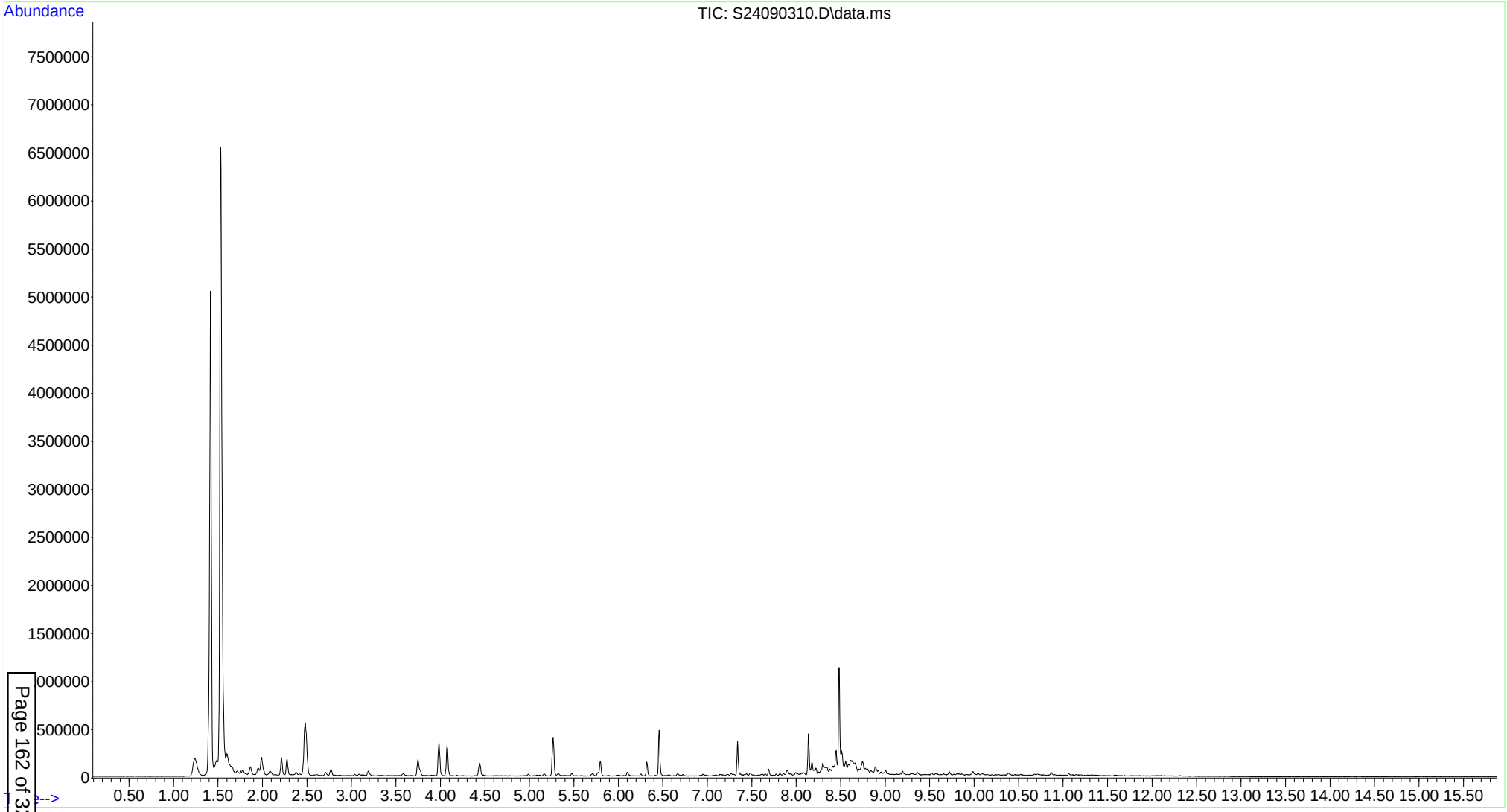
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	213715	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	160998	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	69644	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.746	65	91494	116.83	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 116.83%			
40) Toluene-d8	5.267	98	208372	96.86	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 96.86%			
59) Bromofluorobenzene	7.340	174	53651	81.30	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 81.30%			
Target Compounds						Qvalue

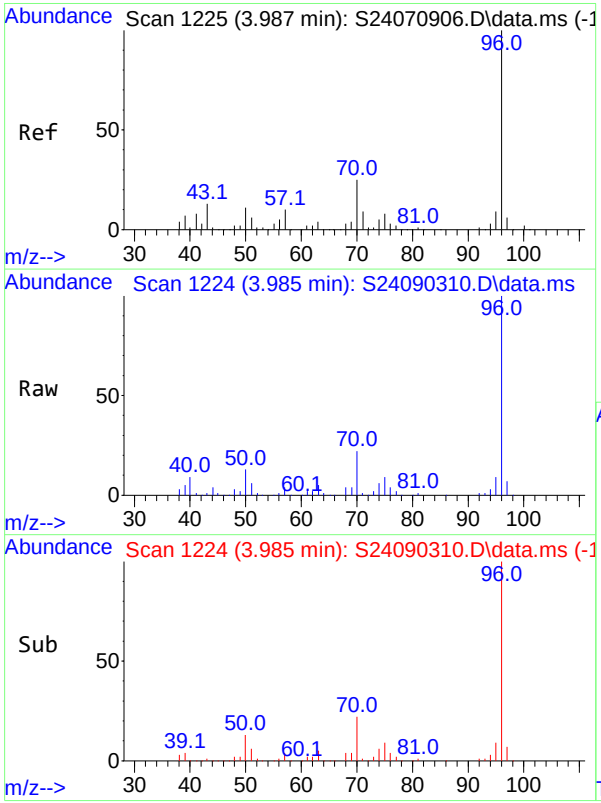
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090310.D
Acq On : 03 Sep 2024 05:54 pm
Operator : KAI
Sample : 0007984-04
Misc : TWA-PSV-03
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Sep 04 10:59:25 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

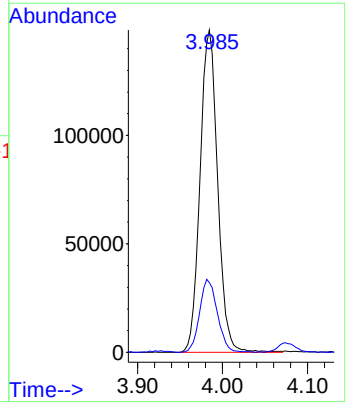


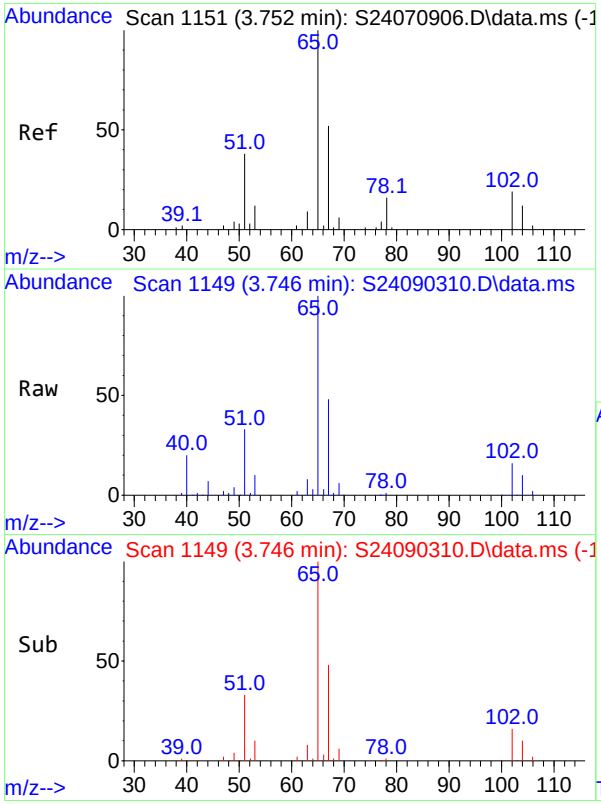


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090310.D
Acq: 03 Sep 2024 05:54 pm

Tgt Ion: 96 Resp: 213715

Ion	Ratio	Lower	Upper
96	100		
70	22.9	0.0	84.6

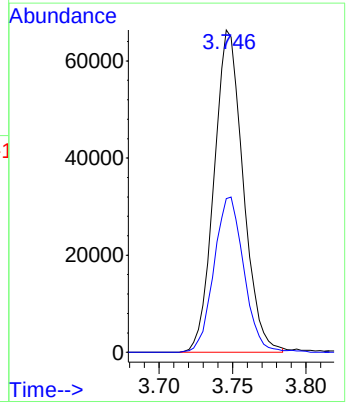


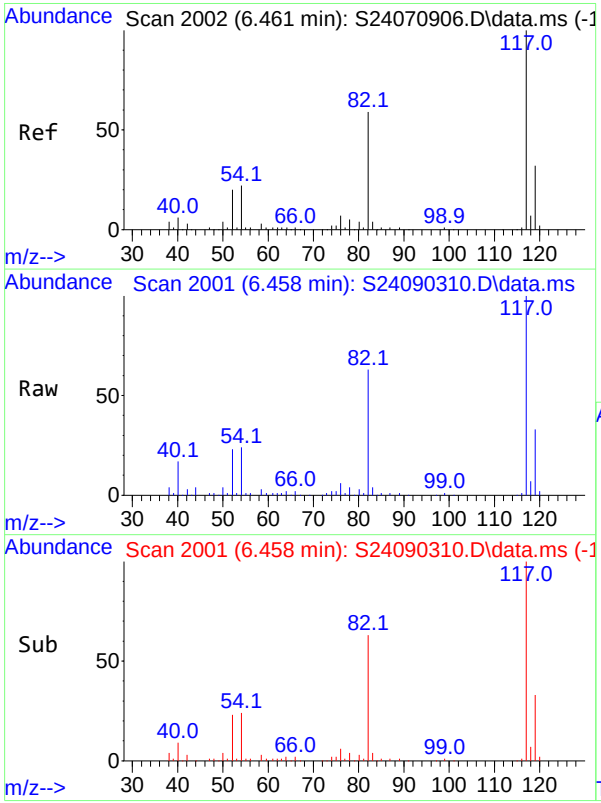


#23
1,2-DCA-d4
Concen: 116.83 ng
RT: 3.746 min Scan# 1149
Delta R.T. -0.006 min
Lab File: S24090310.D
Acq: 03 Sep 2024 05:54 pm

Tgt Ion: 65 Resp: 91494

Ion	Ratio	Lower	Upper
65	100		
67	49.2	41.7	62.5

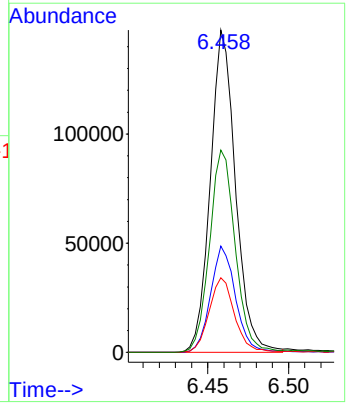


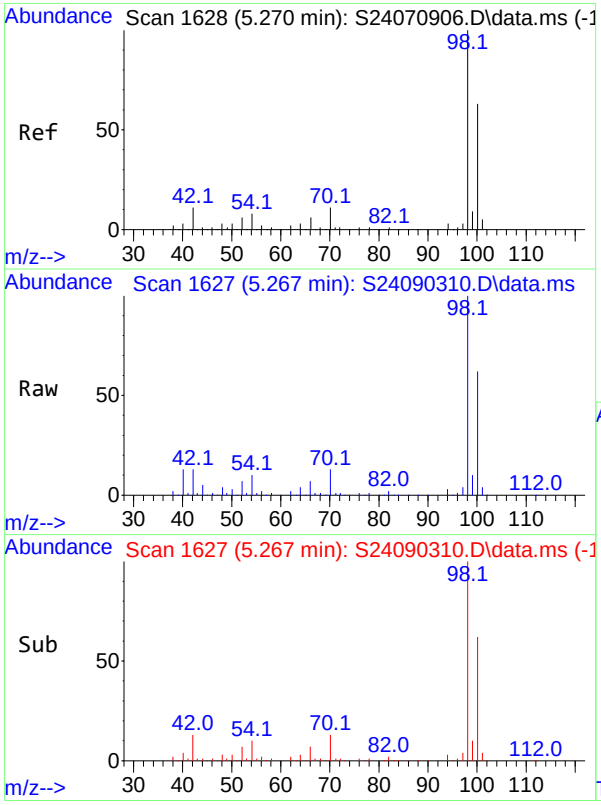


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090310.D
Acq: 03 Sep 2024 05:54 pm

Tgt Ion:117 Resp: 160998

Ion	Ratio	Lower	Upper
117	100		
119	32.7	25.8	38.6
52	23.5	16.7	25.1
82	64.1	47.8	71.8

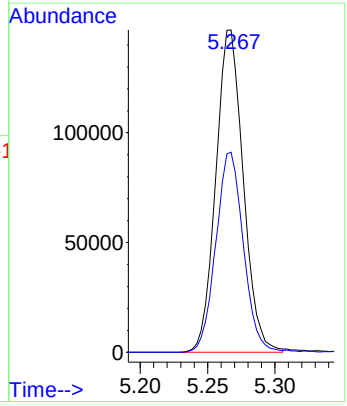


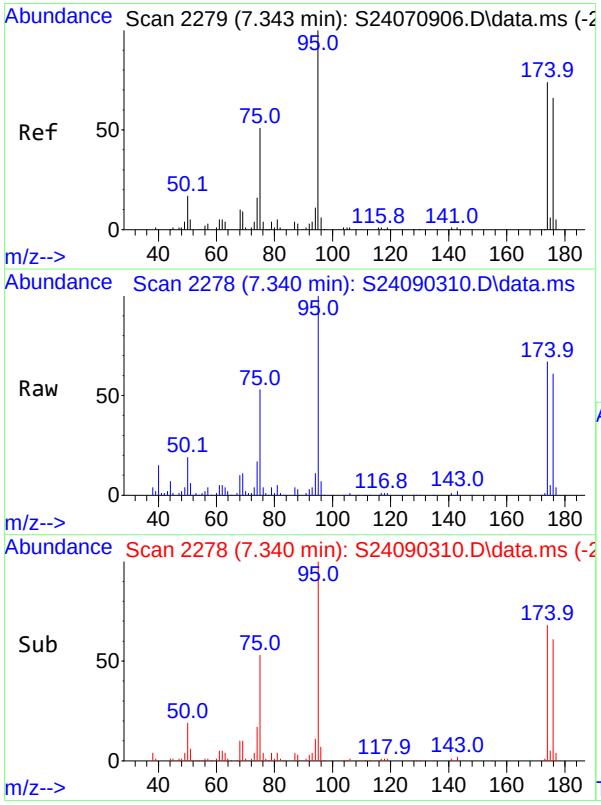


#40
Toluene-d8
Concen: 96.86 ng
RT: 5.267 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090310.D
Acq: 03 Sep 2024 05:54 pm

Tgt Ion: 98 Resp: 208372

Ion	Ratio	Lower	Upper
98	100		
100	62.1	51.1	76.7

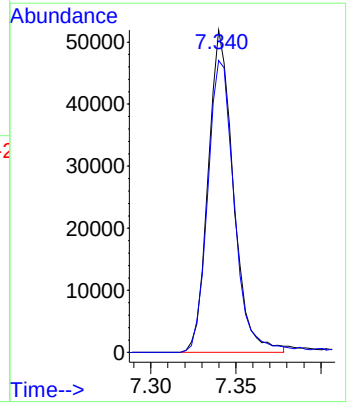


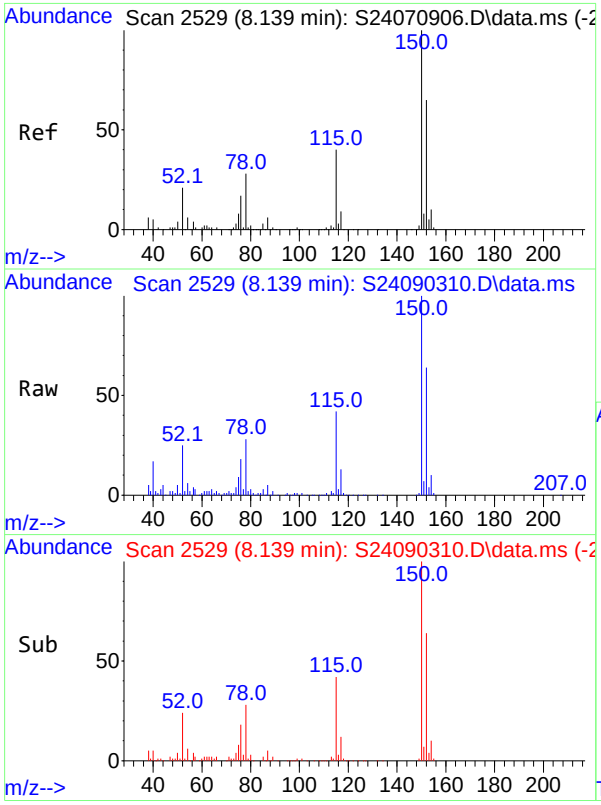


#59
Bromofluorobenzene
Concen: 81.30 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090310.D
Acq: 03 Sep 2024 05:54 pm

Tgt Ion:174 Resp: 53651

Ion	Ratio	Lower	Upper
174	100		
176	95.3	75.0	112.6

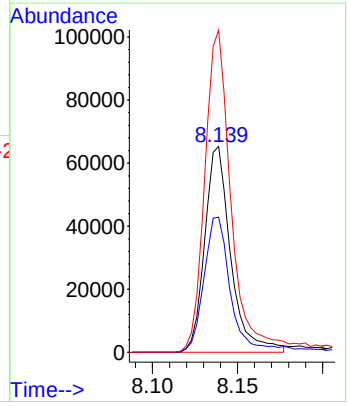




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090310.D
Acq: 03 Sep 2024 05:54 pm

Tgt Ion:152 Resp: 69644

Ion	Ratio	Lower	Upper
152	100		
115	66.3	60.5	90.7
150	157.1	129.6	194.4



BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Raw Data

Analysis:	TO-17 (Passive)	**Analyzed:**	9/3/2024 6:29:00PM	**FileID:**	S24090311.D	**DF:**	1.00
Lab Number:	0007984-05	**Sample Name:**	TWA-PSV-04				

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090311.D
Acq On : 03 Sep 2024 06:29 pm
Operator : KAI
Sample : 0007984-05
Misc : TWA-PSV-04
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 04 10:59:34 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

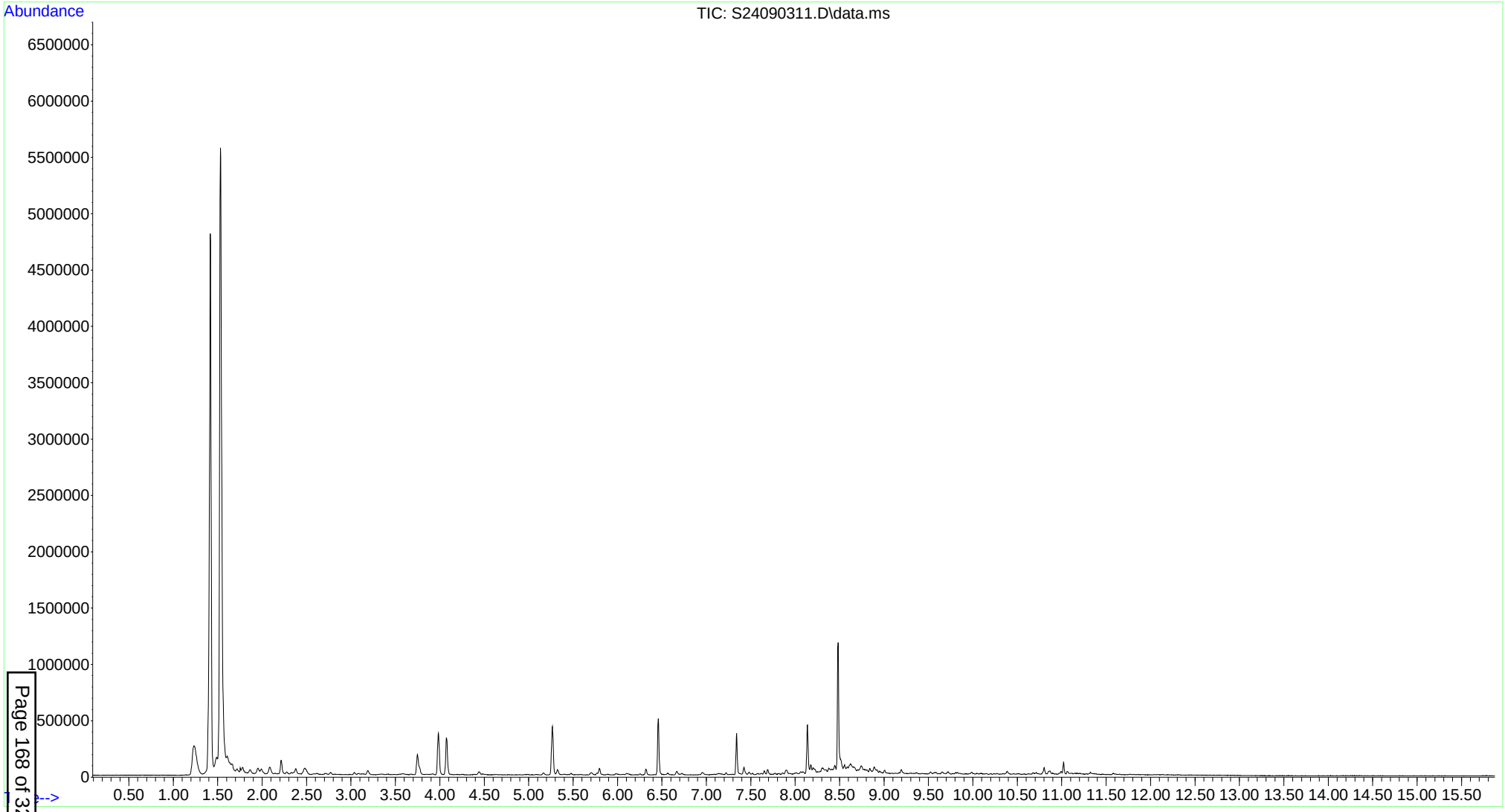
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	233272	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	171299	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	71882	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	97463	114.02	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 114.02%			
40) Toluene-d8	5.268	98	220704	96.42	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 96.42%			
59) Bromofluorobenzene	7.340	174	55094	78.46	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 78.46%			
Target Compounds						Qvalue

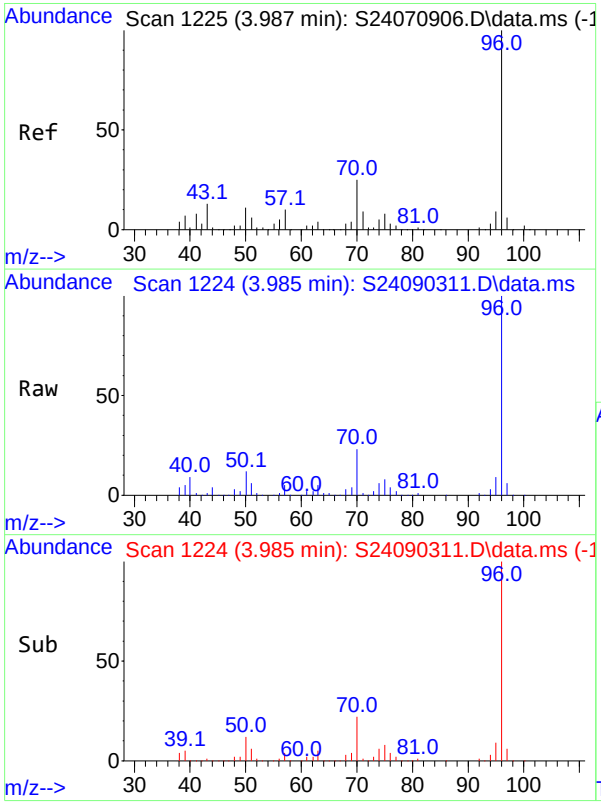
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090311.D
Acq On : 03 Sep 2024 06:29 pm
Operator : KAI
Sample : 0007984-05
Misc : TWA-PSV-04
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Sep 04 10:59:34 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

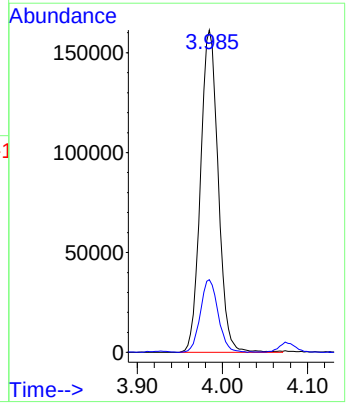


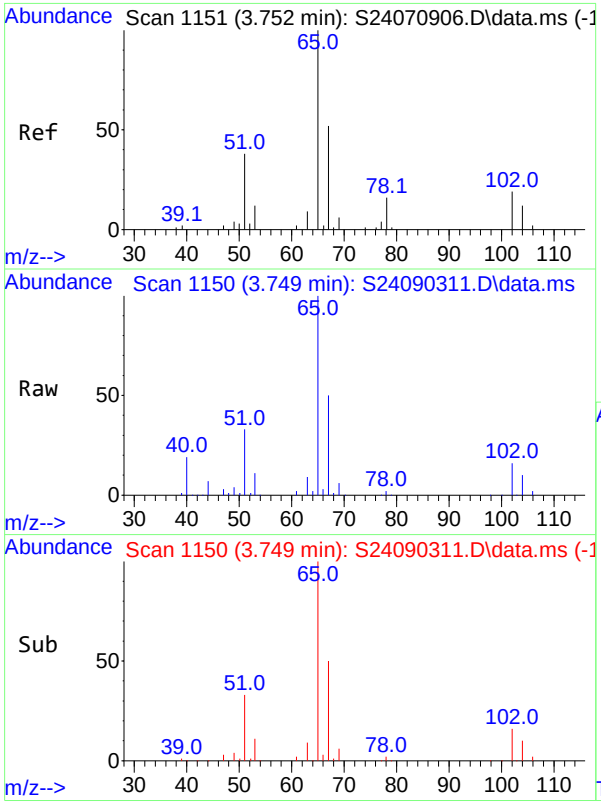


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090311.D
Acq: 03 Sep 2024 06:29 pm

Tgt Ion: 96 Resp: 233272

Ion	Ratio	Lower	Upper
96	100		
70	22.7	0.0	84.6

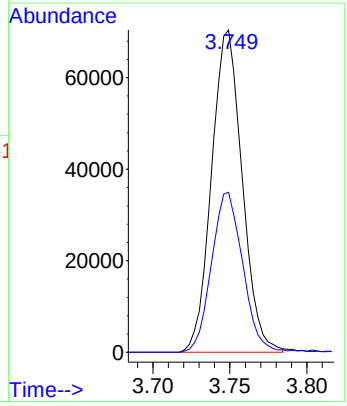


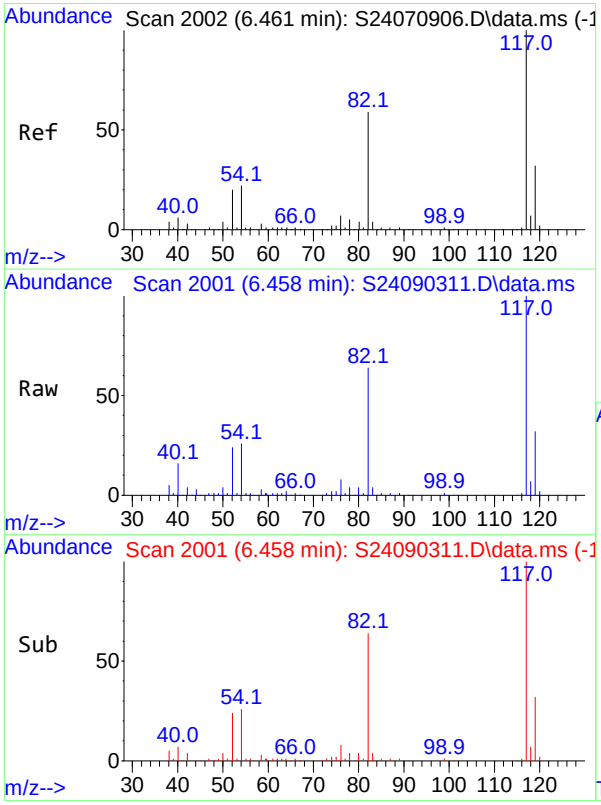


#23
1,2-DCA-d4
Concen: 114.02 ng
RT: 3.749 min Scan# 1150
Delta R.T. -0.003 min
Lab File: S24090311.D
Acq: 03 Sep 2024 06:29 pm

Tgt Ion: 65 Resp: 97463

Ion	Ratio	Lower	Upper
65	100		
67	50.3	41.7	62.5

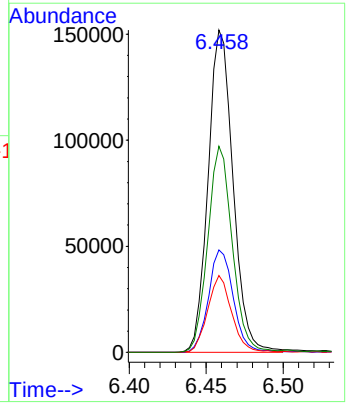


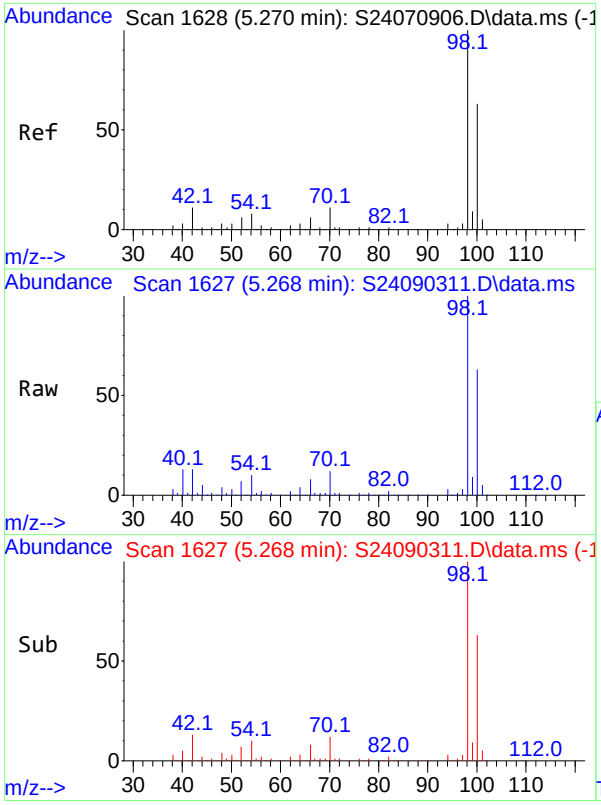


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090311.D
Acq: 03 Sep 2024 06:29 pm

Tgt Ion:117 Resp: 171299

Ion	Ratio	Lower	Upper
117	100		
119	31.8	25.8	38.6
52	23.0	16.7	25.1
82	62.8	47.8	71.8

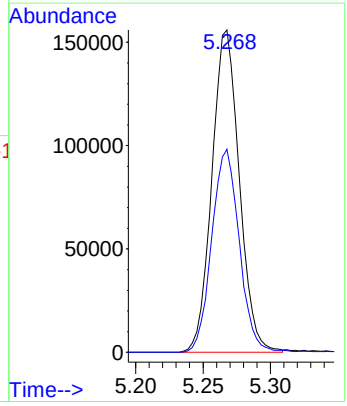


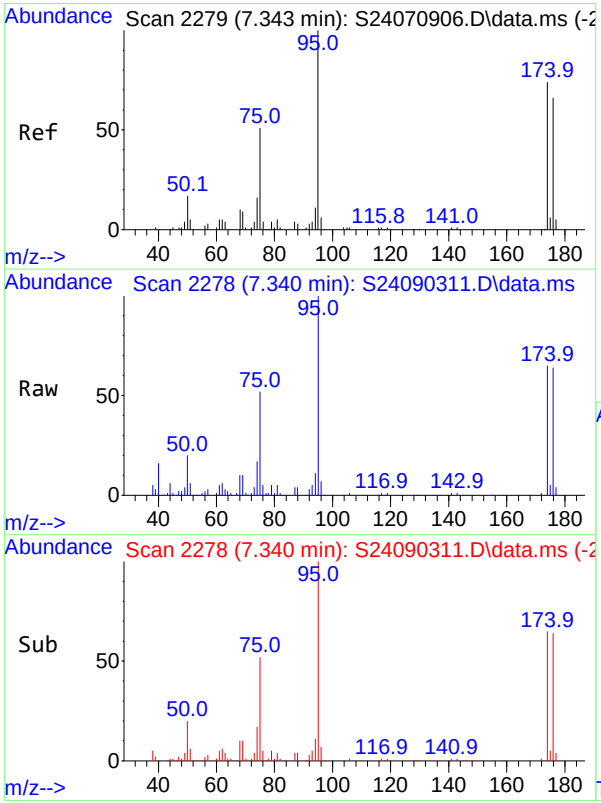


#40
Toluene-d8
Concen: 96.42 ng
RT: 5.268 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090311.D
Acq: 03 Sep 2024 06:29 pm

Tgt Ion: 98 Resp: 220704

Ion	Ratio	Lower	Upper
98	100		
100	63.0	51.1	76.7

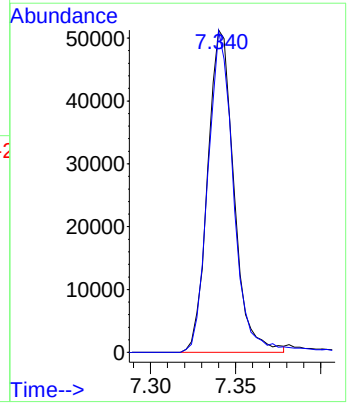


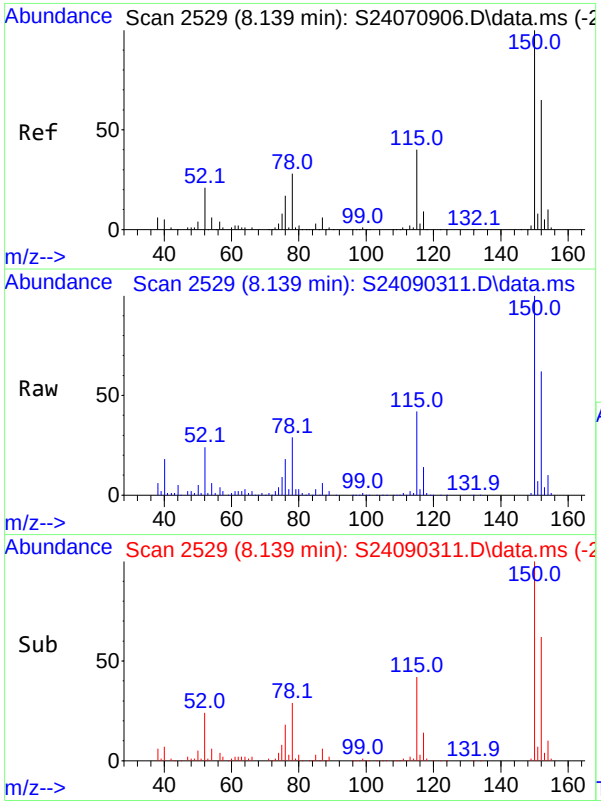


#59
Bromofluorobenzene
Concen: 78.46 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090311.D
Acq: 03 Sep 2024 06:29 pm

Tgt Ion:174 Resp: 55094

Ion	Ratio	Lower	Upper
174	100		
176	96.5	75.0	112.6

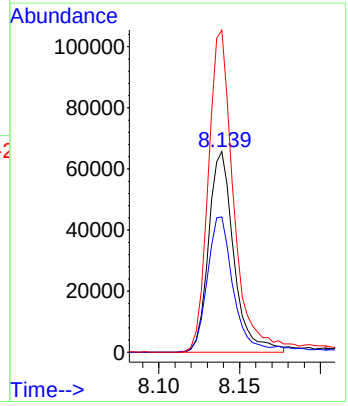




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090311.D
Acq: 03 Sep 2024 06:29 pm

Tgt Ion:152 Resp: 71882

Ion	Ratio	Lower	Upper
152	100		
115	69.7	60.5	90.7
150	159.8	129.6	194.4



BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Raw Data

Analysis:	TO-17 (Passive)	**Analyzed:**	9/3/2024 7:04:00PM	**FileID:**	S24090312.D	**DF:**	1.00
Lab Number:	0007984-06	**Sample Name:**	TWA-PSV-05				

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090312.D
Acq On : 03 Sep 2024 07:04 pm
Operator : KAI
Sample : 0007984-06
Misc : TWA-PSV-05
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 04 10:59:42 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

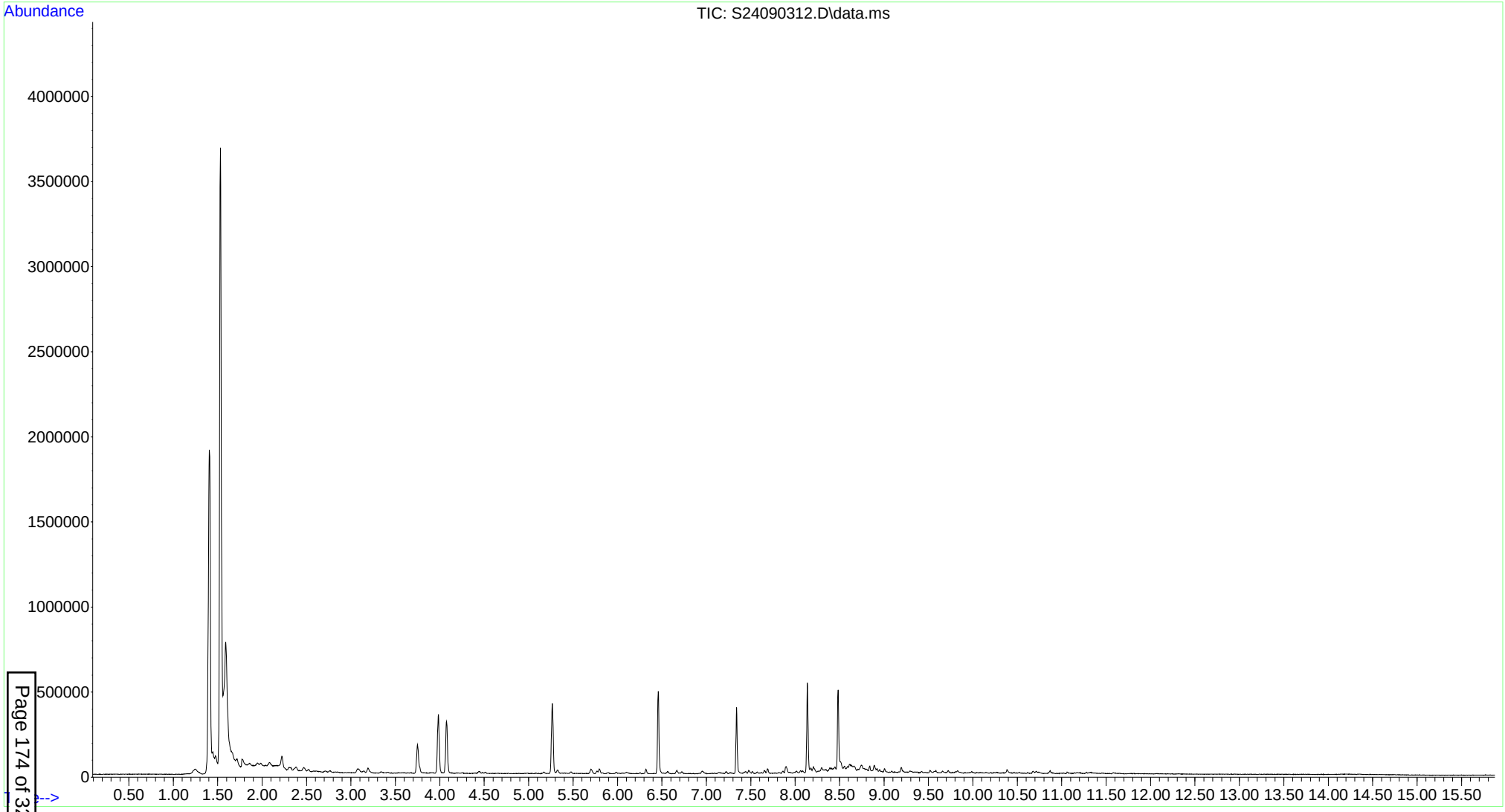
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	213665	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	165704	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	79340	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	94214	120.33	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 120.33%			
40) Toluene-d8	5.264	98	211643	95.59	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 95.59%			
59) Bromofluorobenzene	7.340	174	56901	83.77	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 83.77%			
Target Compounds						Qvalue

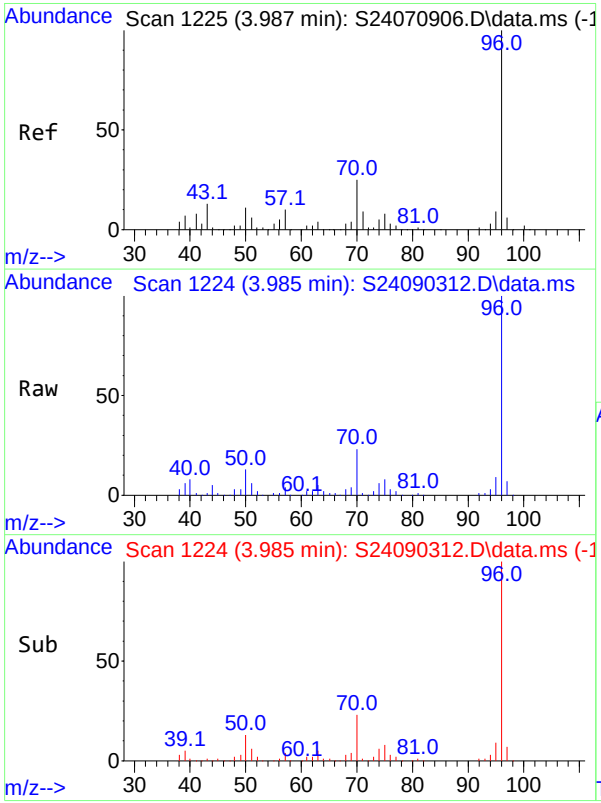
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090312.D
Acq On : 03 Sep 2024 07:04 pm
Operator : KAI
Sample : 0007984-06
Misc : TWA-PSV-05
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Sep 04 10:59:42 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

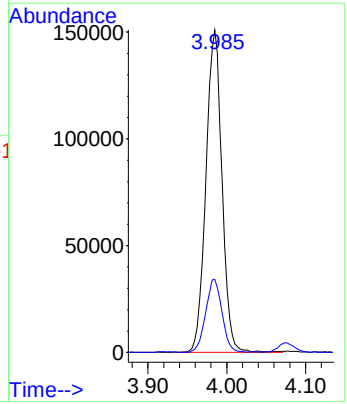


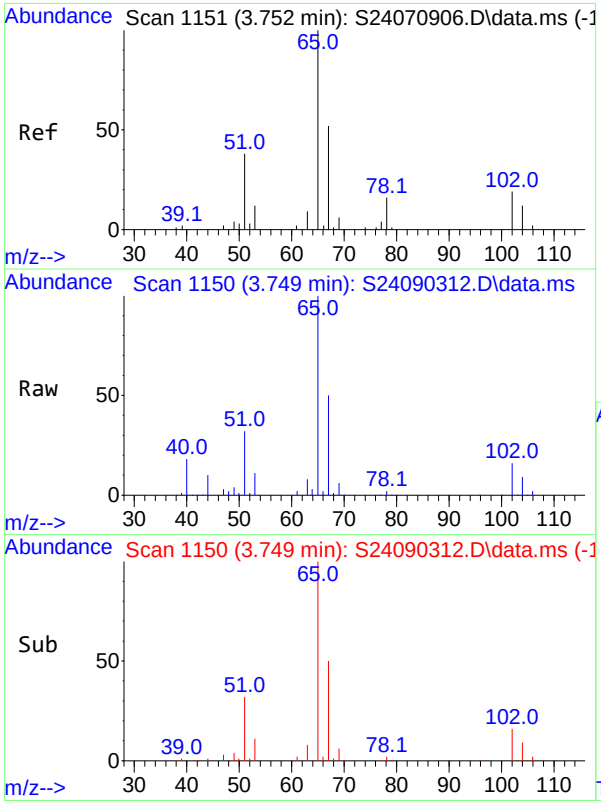


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090312.D
Acq: 03 Sep 2024 07:04 pm

Tgt Ion: 96 Resp: 213665

Ion	Ratio	Lower	Upper
96	100		
70	23.1	0.0	84.6

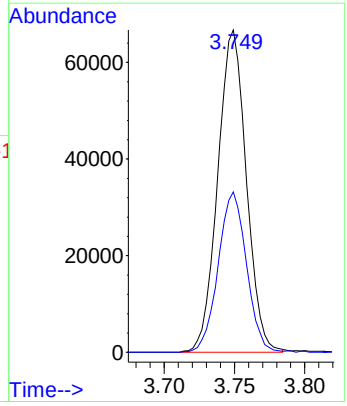


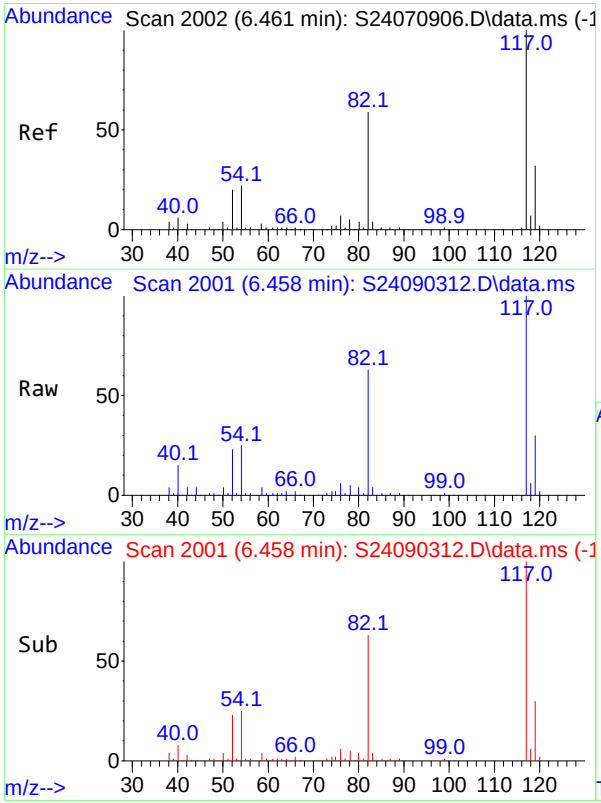


#23
1,2-DCA-d4
Concen: 120.33 ng
RT: 3.749 min Scan# 1150
Delta R.T. -0.003 min
Lab File: S24090312.D
Acq: 03 Sep 2024 07:04 pm

Tgt Ion: 65 Resp: 94214

Ion	Ratio	Lower	Upper
65	100		
67	49.2	41.7	62.5

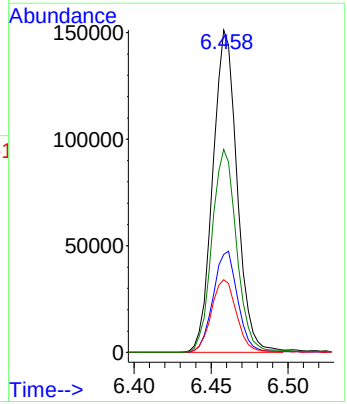


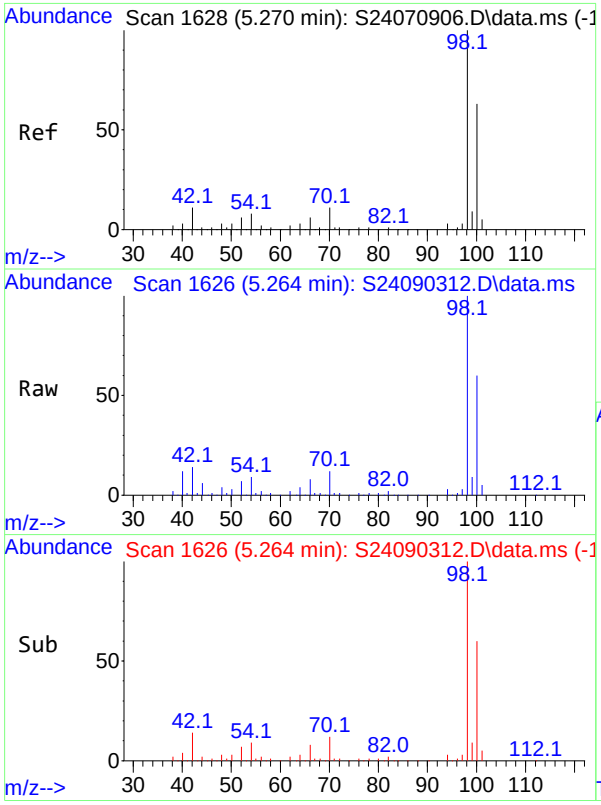


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090312.D
Acq: 03 Sep 2024 07:04 pm

Tgt Ion:117 Resp: 165704

Ion	Ratio	Lower	Upper
117	100		
119	31.8	25.8	38.6
52	23.4	16.7	25.1
82	64.1	47.8	71.8

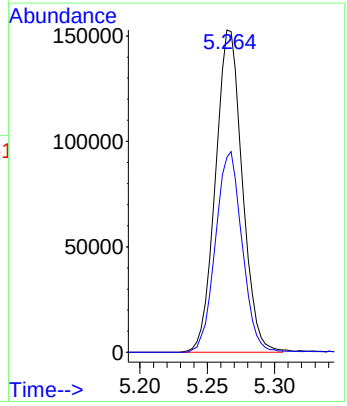


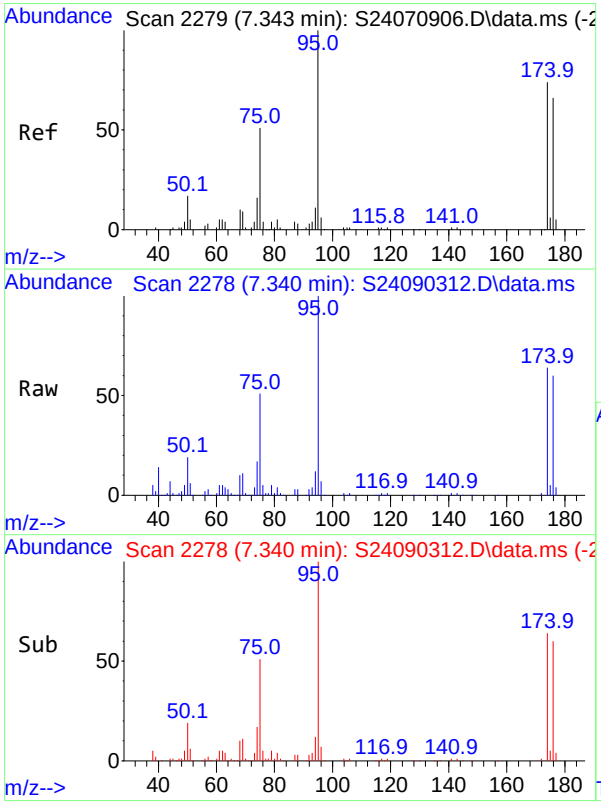


#40
Toluene-d8
Concen: 95.59 ng
RT: 5.264 min Scan# 1626
Delta R.T. -0.006 min
Lab File: S24090312.D
Acq: 03 Sep 2024 07:04 pm

Tgt Ion: 98 Resp: 211643

Ion	Ratio	Lower	Upper
98	100		
100	61.9	51.1	76.7

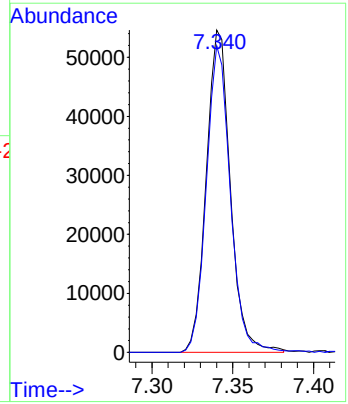


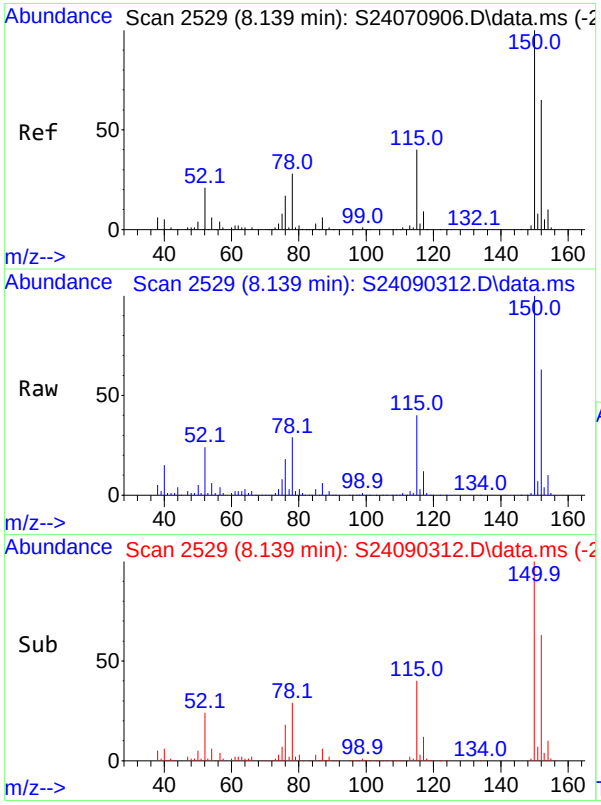


#59
Bromofluorobenzene
Concen: 83.77 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090312.D
Acq: 03 Sep 2024 07:04 pm

Tgt Ion:174 Resp: 56901

Ion	Ratio	Lower	Upper
174	100		
176	94.4	75.0	112.6

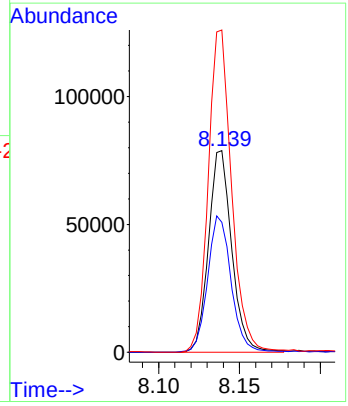




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090312.D
Acq: 03 Sep 2024 07:04 pm

Tgt Ion:152 Resp: 79340

Ion	Ratio	Lower	Upper
152	100		
115	68.3	60.5	90.7
150	160.1	129.6	194.4



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Raw Data

Analysis:	TO-17 (Passive)	**Analyzed:**	9/3/2024 7:38:00PM	**FileID:**	S24090313.D	**DF:**	1.00
Lab Number:	0007984-07	**Sample Name:**	TWA-PSV-05-DUP				

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090313.D
Acq On : 03 Sep 2024 07:38 pm
Operator : KAI
Sample : 0007984-07
Misc : TWA-PSV-05-DUP
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 04 10:59:53 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

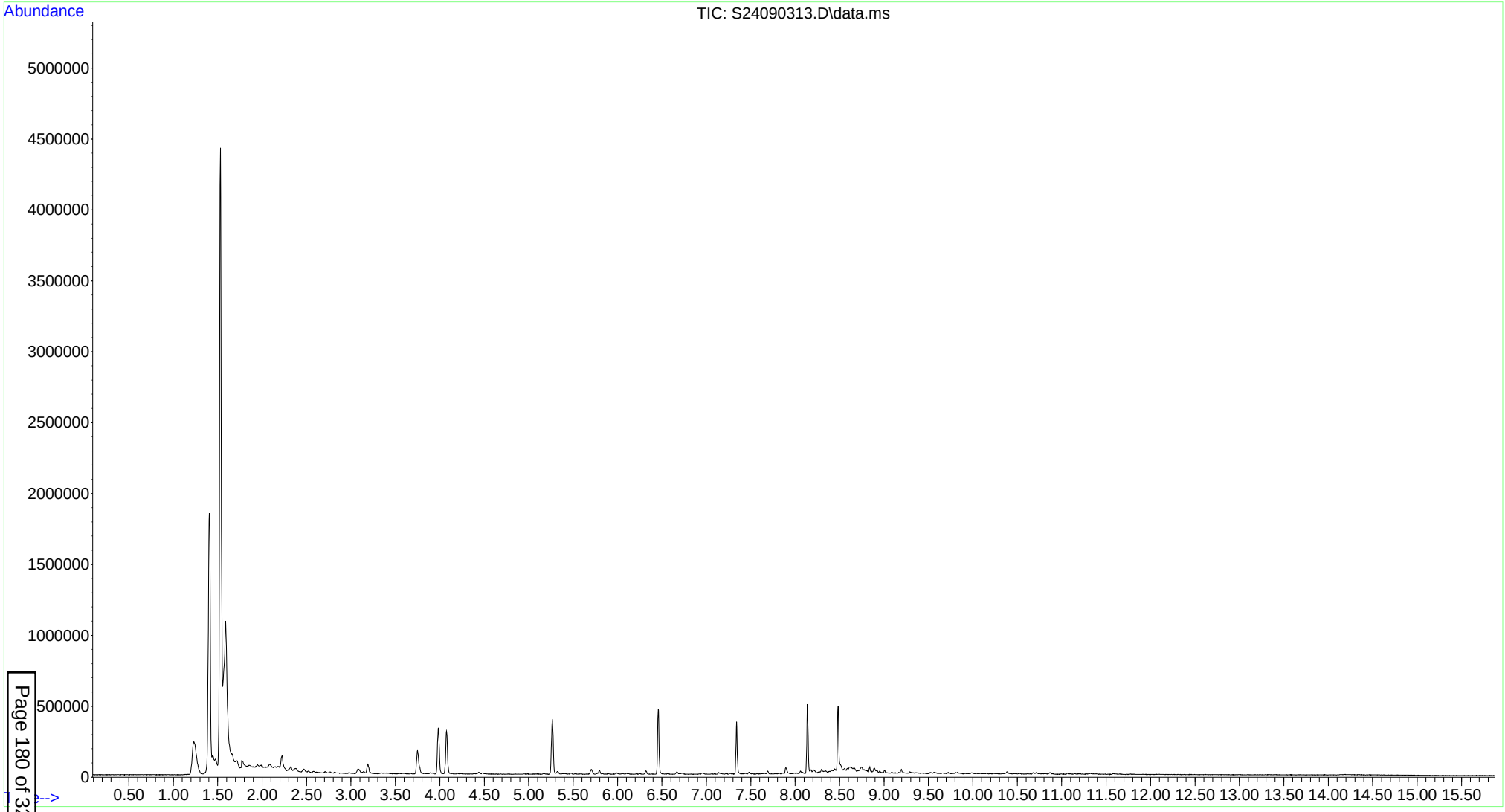
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	202515	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	157675	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	74905	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.746	65	92090	124.09	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 124.09%			
40) Toluene-d8	5.267	98	196792	93.41	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 93.41%			
59) Bromofluorobenzene	7.340	174	53044	82.07	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 82.07%			
Target Compounds						Qvalue

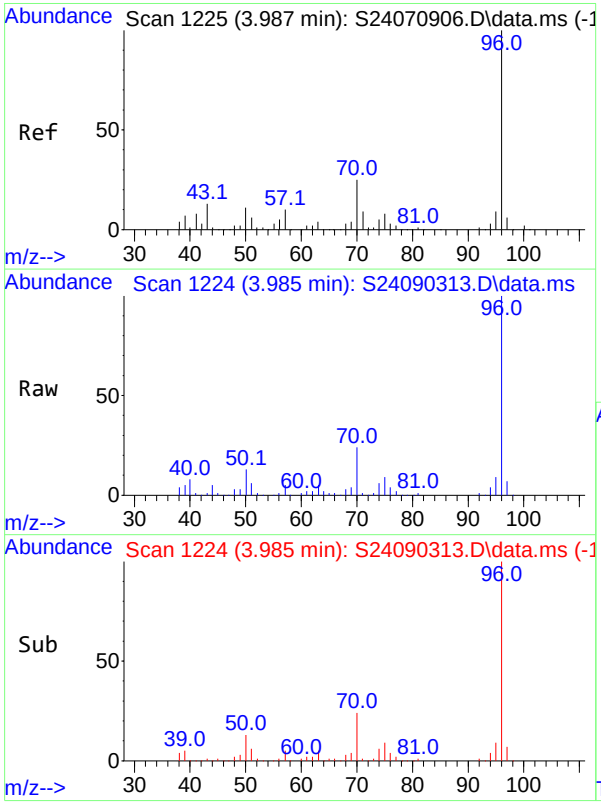
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090313.D
Acq On : 03 Sep 2024 07:38 pm
Operator : KAI
Sample : 0007984-07
Misc : TWA-PSV-05-DUP
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Sep 04 10:59:53 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

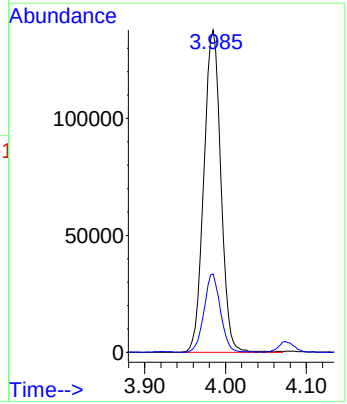


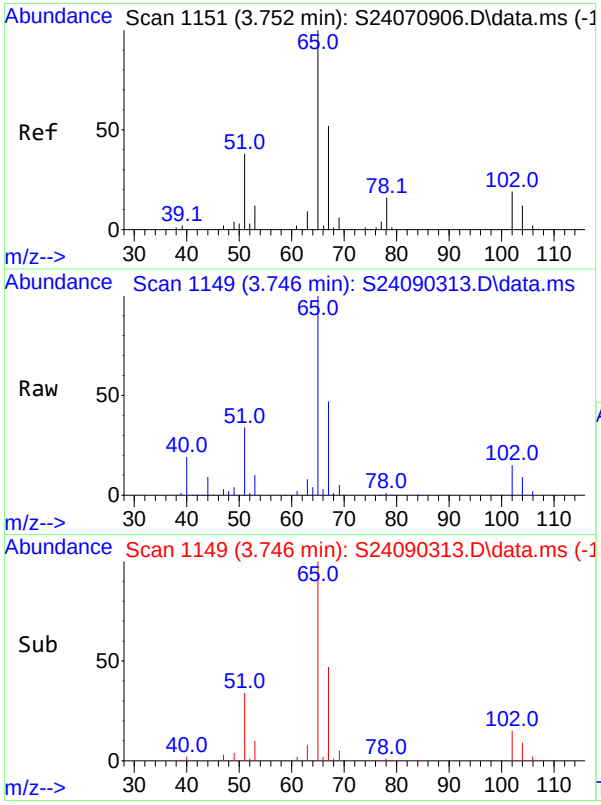


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090313.D
Acq: 03 Sep 2024 07:38 pm

Tgt Ion: 96 Resp: 202515

Ion	Ratio	Lower	Upper
96	100		
70	23.5	0.0	84.6

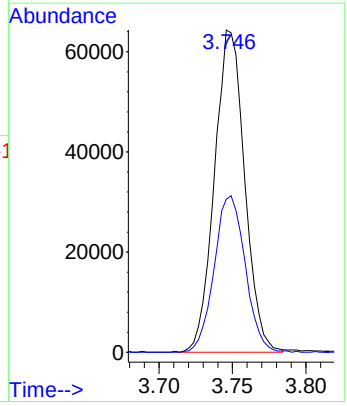


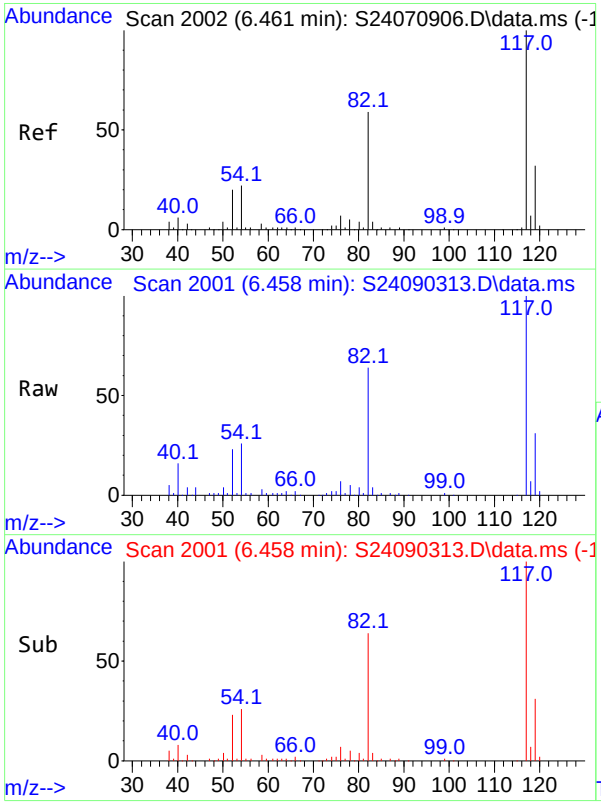


#23
1,2-DCA-d4
Concen: 124.09 ng
RT: 3.746 min Scan# 1149
Delta R.T. -0.006 min
Lab File: S24090313.D
Acq: 03 Sep 2024 07:38 pm

Tgt Ion: 65 Resp: 92090

Ion	Ratio	Lower	Upper
65	100		
67	49.9	41.7	62.5

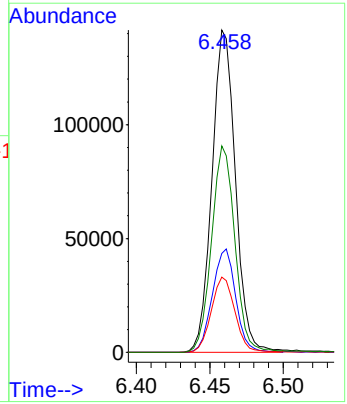


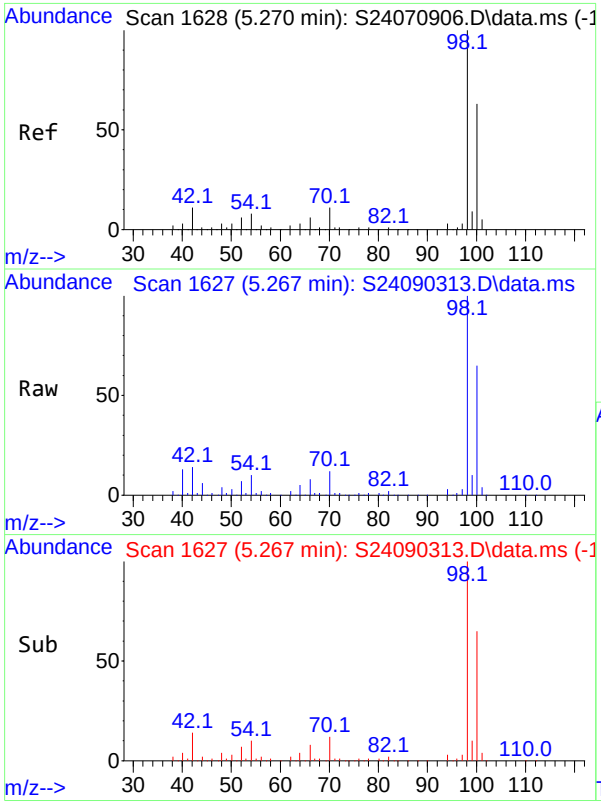


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090313.D
Acq: 03 Sep 2024 07:38 pm

Tgt Ion:117 Resp: 157675

Ion	Ratio	Lower	Upper
117	100		
119	32.0	25.8	38.6
52	23.5	16.7	25.1
82	63.6	47.8	71.8

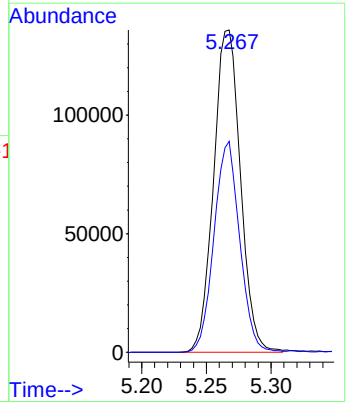


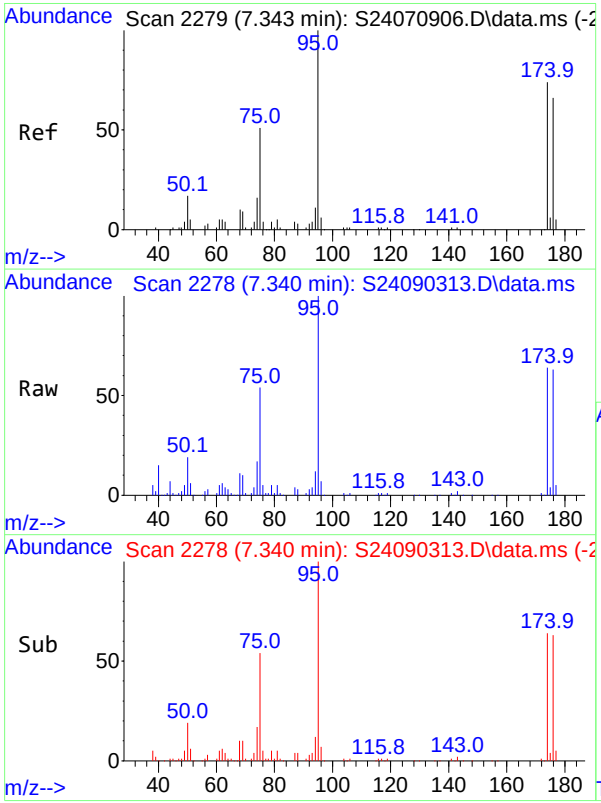


#40
Toluene-d8
Concen: 93.41 ng
RT: 5.267 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090313.D
Acq: 03 Sep 2024 07:38 pm

Tgt Ion: 98 Resp: 196792

Ion	Ratio	Lower	Upper
98	100		
100	62.5	51.1	76.7

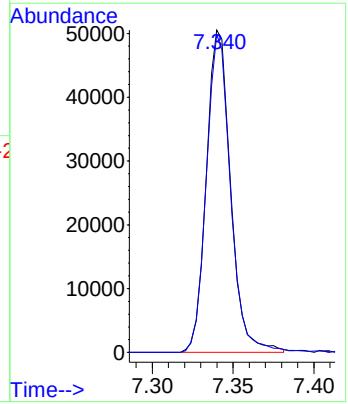


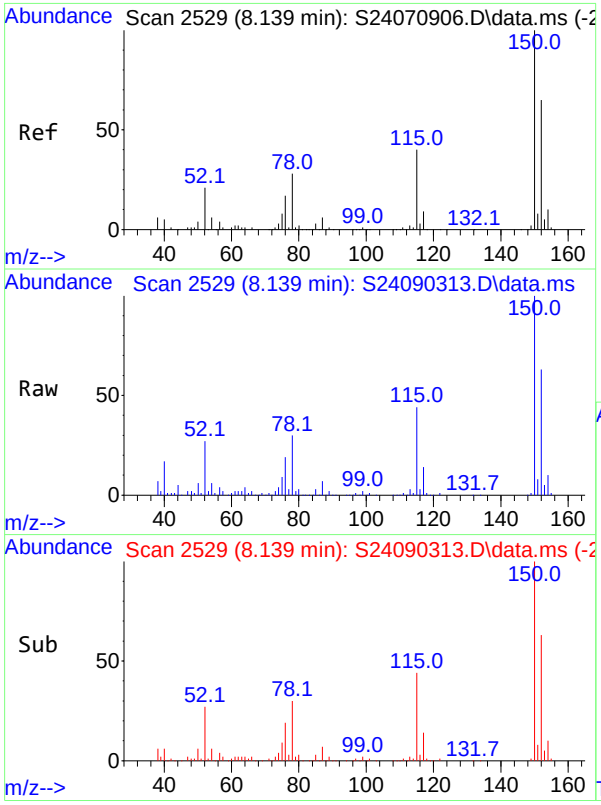


#59
Bromofluorobenzene
Concen: 82.07 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090313.D
Acq: 03 Sep 2024 07:38 pm

Tgt Ion:174 Resp: 53044

Ion	Ratio	Lower	Upper
174	100		
176	97.9	75.0	112.6

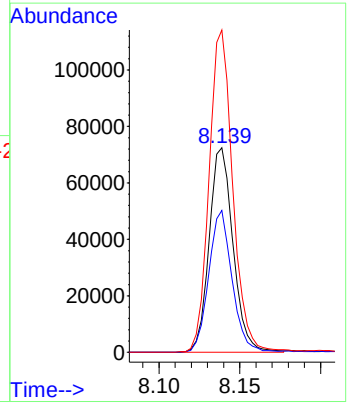




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090313.D
Acq: 03 Sep 2024 07:38 pm

Tgt Ion:152 Resp: 74905

Ion	Ratio	Lower	Upper
152	100		
115	67.6	60.5	90.7
150	155.6	129.6	194.4



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Batch and Sequence QC Raw Data

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sequence Raw Data

Analysis: TO-17 (Passive)
Analyzed: 9/3/2024 1:32:00PM

Lab Number: 24I0002-BLK1
QC Description: Lab Blank

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090302.D
Acq On : 03 Sep 2024 01:32 pm
Operator : KAI
Sample : 24I0002-BLK1
Misc : LB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 11:09:32 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

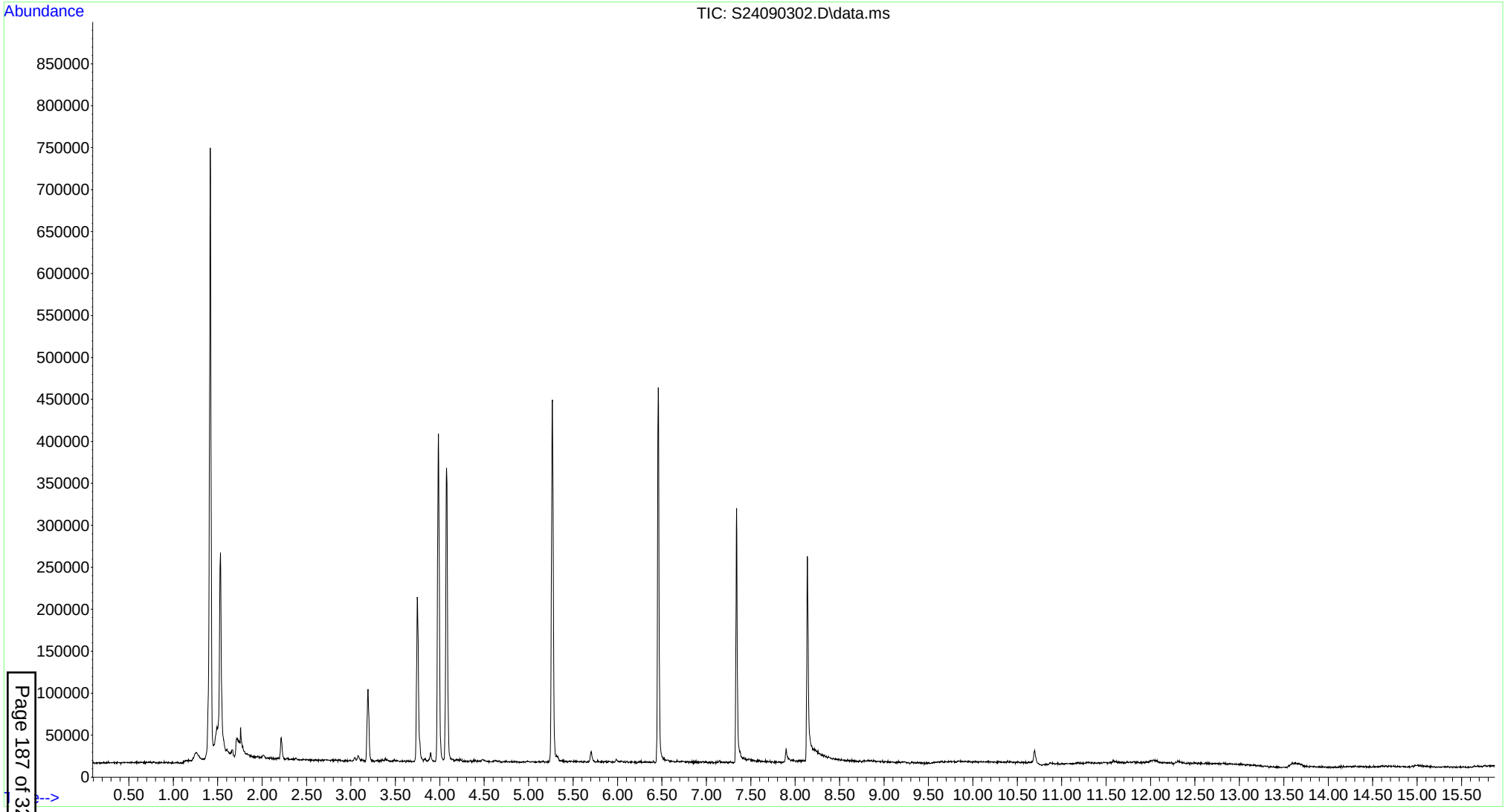
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	247092	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	161953	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	59624	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.746	65	104477	115.38	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 115.38%			
40) Toluene-d8	5.268	98	228439	105.56	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 105.56%			
59) Bromofluorobenzene	7.340	174	50119	75.50	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 75.50%			
Target Compounds						Qvalue

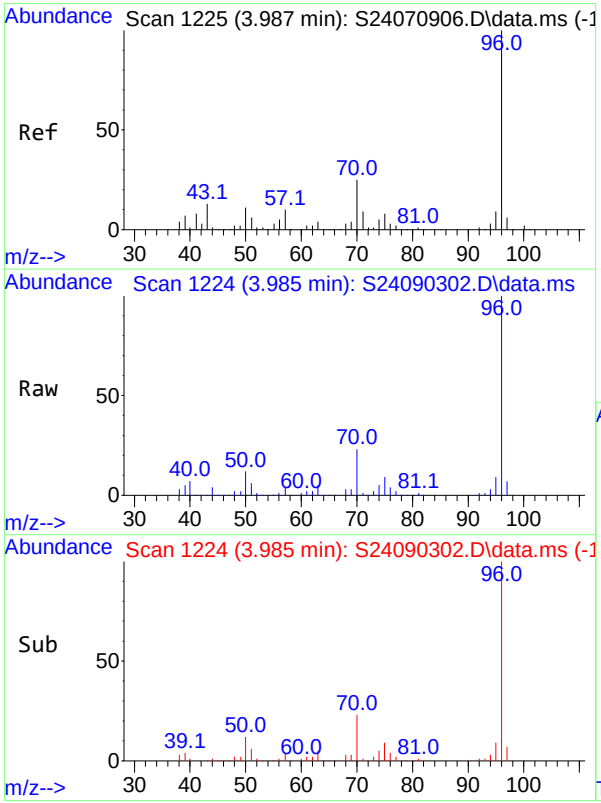
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090302.D
Acq On : 03 Sep 2024 01:32 pm
Operator : KAI
Sample : 24I0002-BLK1
Misc : LB
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 04 11:09:32 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

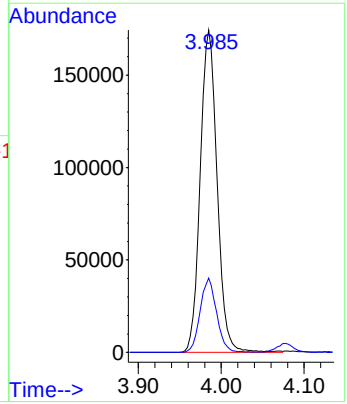


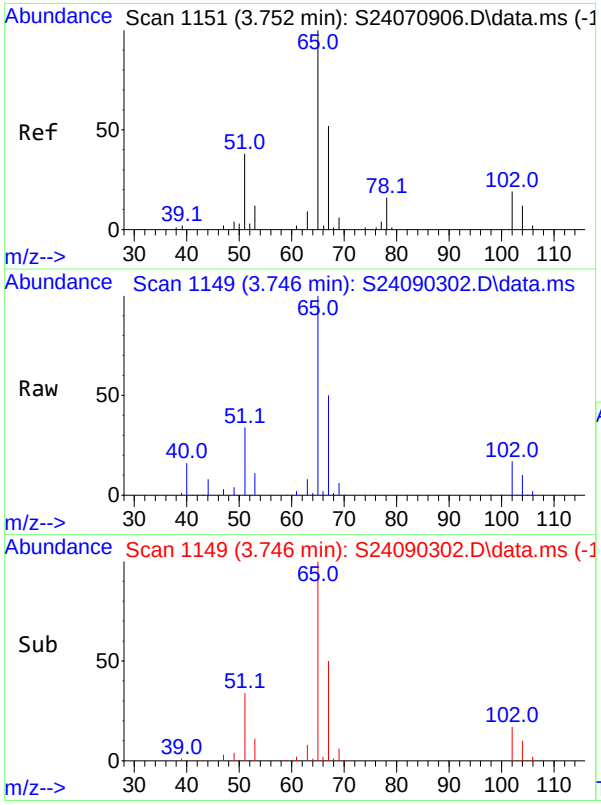


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090302.D
Acq: 03 Sep 2024 01:32 pm

Tgt Ion: 96 Resp: 247092

Ion	Ratio	Lower	Upper
96	100		
70	23.4	0.0	84.6

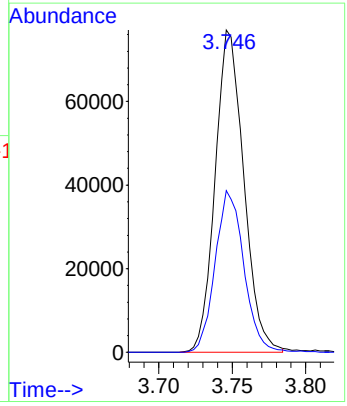


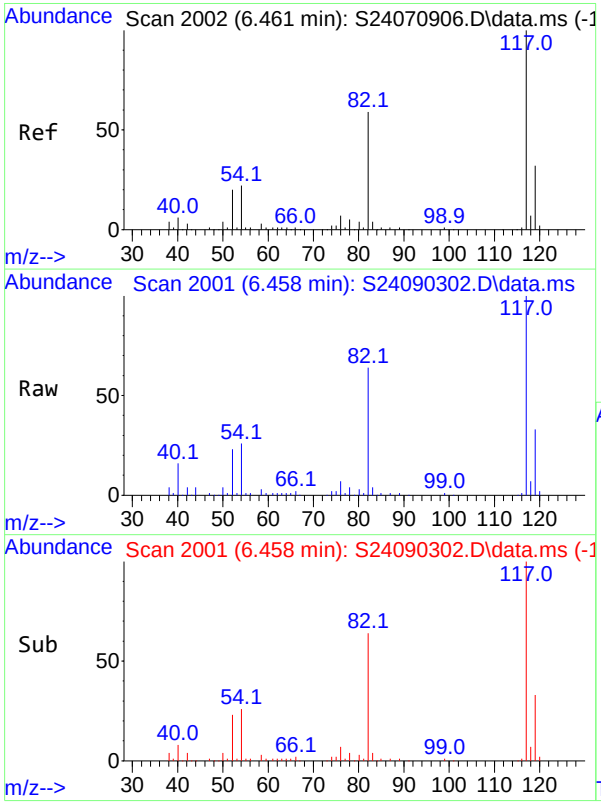


#23
1,2-DCA-d4
Concen: 115.38 ng
RT: 3.746 min Scan# 1149
Delta R.T. -0.006 min
Lab File: S24090302.D
Acq: 03 Sep 2024 01:32 pm

Tgt Ion: 65 Resp: 104477

Ion	Ratio	Lower	Upper
65	100		
67	50.2	41.7	62.5

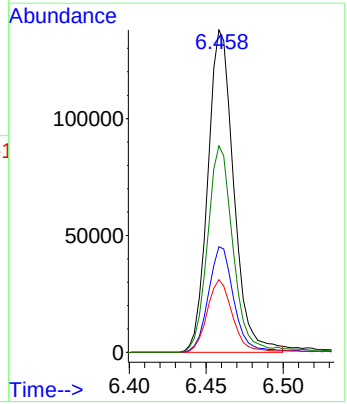


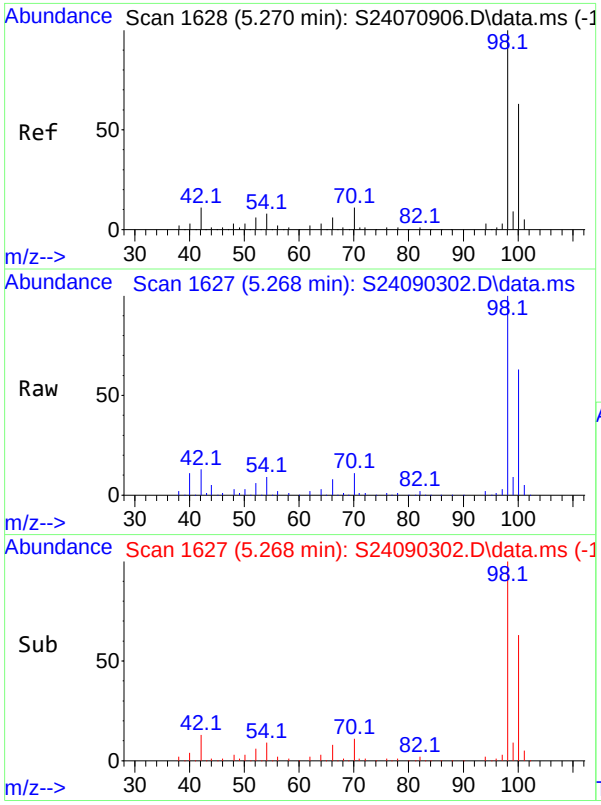


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090302.D
Acq: 03 Sep 2024 01:32 pm

Tgt Ion:117 Resp: 161953

Ion	Ratio	Lower	Upper
117	100		
119	32.2	25.8	38.6
52	22.1	16.7	25.1
82	63.0	47.8	71.8

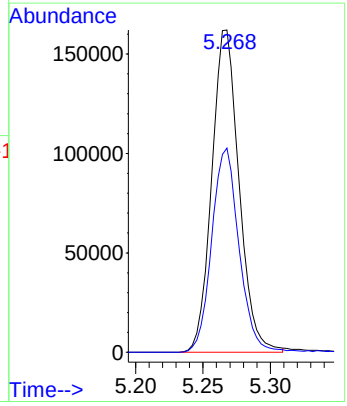


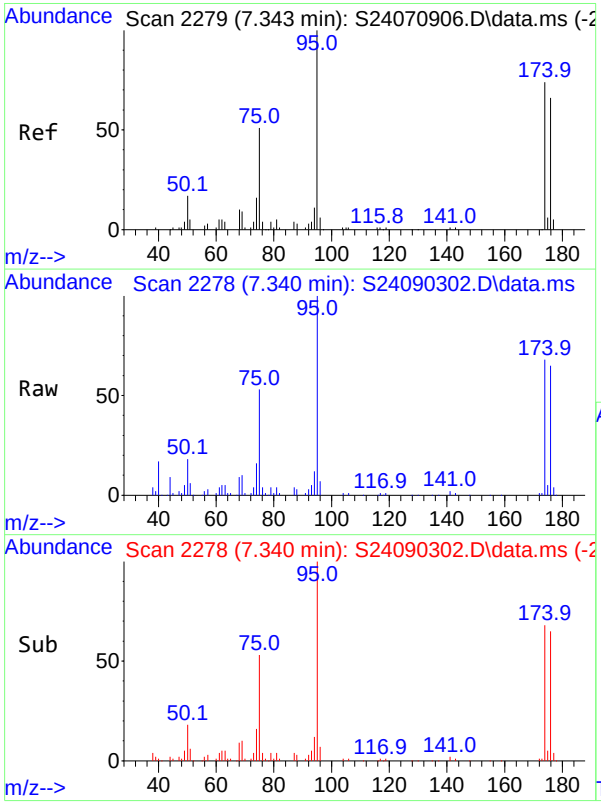


#40
Toluene-d8
Concen: 105.56 ng
RT: 5.268 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090302.D
Acq: 03 Sep 2024 01:32 pm

Tgt Ion: 98 Resp: 228439

Ion	Ratio	Lower	Upper
98	100		
100	63.1	51.1	76.7

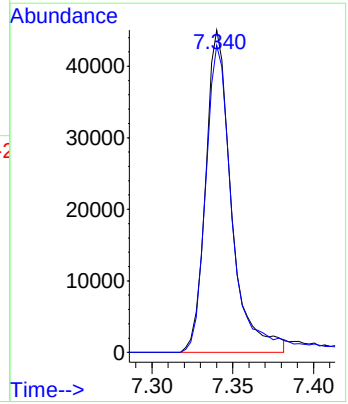


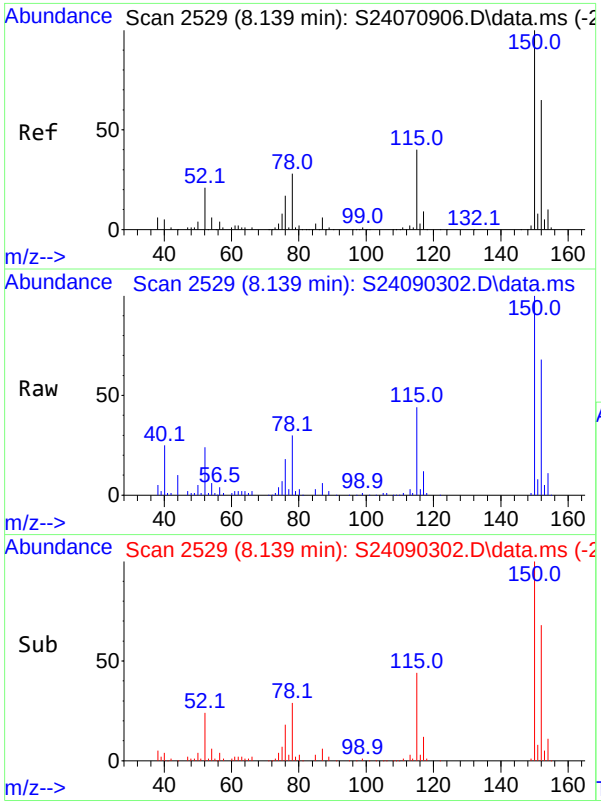


#59
Bromofluorobenzene
Concen: 75.50 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090302.D
Acq: 03 Sep 2024 01:32 pm

Tgt Ion:174 Resp: 50119

Ion	Ratio	Lower	Upper
174	100		
176	96.6	75.0	112.6

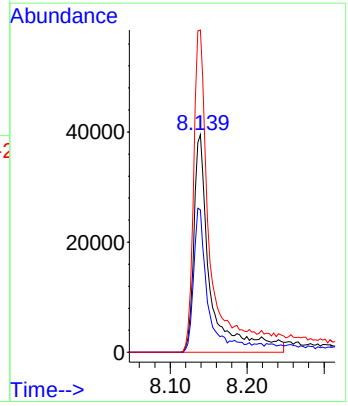




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090302.D
Acq: 03 Sep 2024 01:32 pm

Tgt Ion:152 Resp: 59624

Ion	Ratio	Lower	Upper
152	100		
115	63.8	60.5	90.7
150	152.2	129.6	194.4



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sequence Raw Data

Analysis: TO-17 (Passive)

Analyzed: 9/3/2024 3:10:00PM

Lab Number: 24I0002-BS1

QC Description: LCS, Calibration Source Verification

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090305.D
Acq On : 03 Sep 2024 03:10 pm
Operator : KAI
Sample : 24I0002-BS1
Misc : LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 04 10:58:41 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

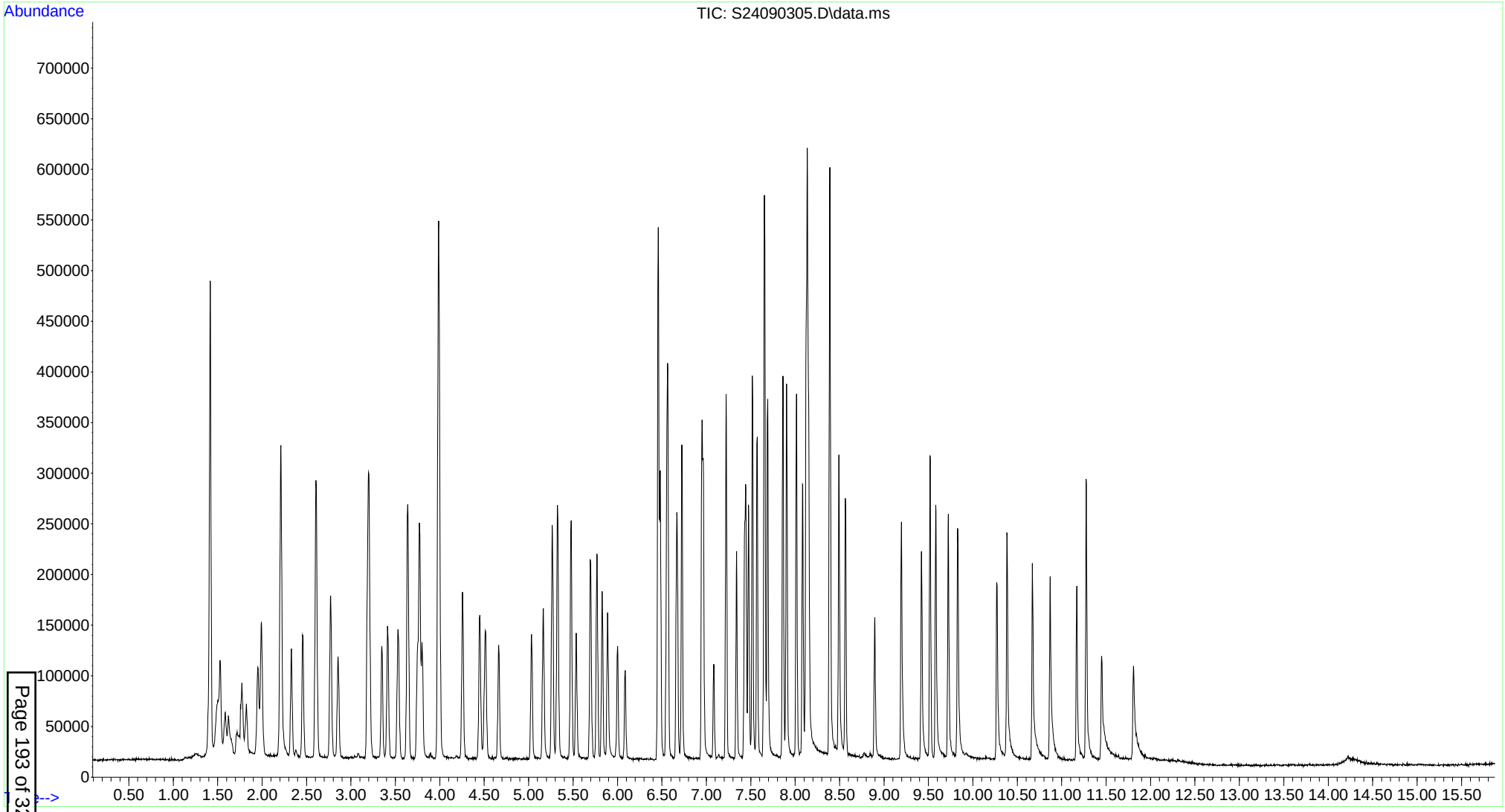
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	264356	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	180231	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	86605	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.746	65	54439	56.20	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 56.20%#			
40) Toluene-d8	5.264	98	120732	50.13	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 50.13%#			
59) Bromofluorobenzene	7.340	174	31809	43.06	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 43.06%#			
Target Compounds						Qvalue
4) Vinyl Chloride	1.623	62	40191	58.67	ng	99
9) 1,1-Dichloroethene	2.208	96	31287	51.15	ng	95
10) Methylene Chloride	2.457	84	39319	53.76	ng	98
11) 1,1,2-Trichlorotrifluo...	2.205	101	39458	55.58	ng	97
14) trans-1,2-Dichloroethene	2.610	61	58324	54.76	ng	98
15) Methyl-t-butyl ether	2.603	73	108174	50.64	ng	99
16) 1,1-Dichloroethane	2.855	63	73964	55.98	ng	99
18) cis-1,2-Dichloroethene	3.198	96	40041	49.67	ng	95
21) Chloroform	3.412	83	77695	56.59	ng	99
24) 1,2-Dichloroethane	3.800	62	68240	57.75	ng	99
25) 1,1,1-Trichloroethane	3.533	97	69490	55.46	ng	99
27) Carbon Tetrachloride	3.641	117	63401	57.46	ng	99
28) Benzene	3.771	77	37213	51.13	ng	99
31) Trichloroethene	4.255	130	38506	48.96	ng	98
34) 1,4-Dioxane	4.500	88	27147	45.99	ng	94
38) 1,1,2-Trichloroethane	5.694	99	23648	53.78	ng	93
41) Toluene	5.325	92	81207	48.05	ng	98
46) 1,2-Dibromoethane (EDB)	6.086	107	38407	56.58	ng	100
47) Tetrachloroethene	5.771	131	31723	49.74	ng	99
48) 1,1,1,2-Tetrachloroethane	6.554	131	37218	56.71	ng	100
49) Chlorobenzene	6.481	112	94423	49.32	ng	99
50) Ethylbenzene	6.566	106	44592	46.25	ng	97
51) p & m-Xylene	6.668	106	52999	44.89	ng	99
56) o-Xylene	6.948	106	52304	46.61	ng	99
57) 1,2,3-Trichloropropane	7.474	75	61807	55.24	ng	99
58) Isopropylbenzene	7.222	105	143776	47.14	ng	99
65) 1,3,5-Trimethylbenzene	7.652	120	54108	46.78	ng	98
68) 1,2,4-Trimethylbenzene	7.903	120	53277	48.90	ng	99
70) 1,3-Dichlorobenzene	8.085	146	66879	50.94	ng	99
72) 1,4-Dichlorobenzene	8.152	146	66403	47.07	ng	99
73) 1,2-Dichlorobenzene	8.387	146	70628	49.87	ng	100
79) 1,2,4-Trichlorobenzene	9.422	180	45990	46.18	ng	99
80) Naphthalene	9.584	128	138346	45.95	ng	99
82) 1,2,3-Trichlorobenzene	9.724	180	48028	44.55	ng	98
84) 2-Methylnaphthalene	10.272	142	69917	42.53	ng	97

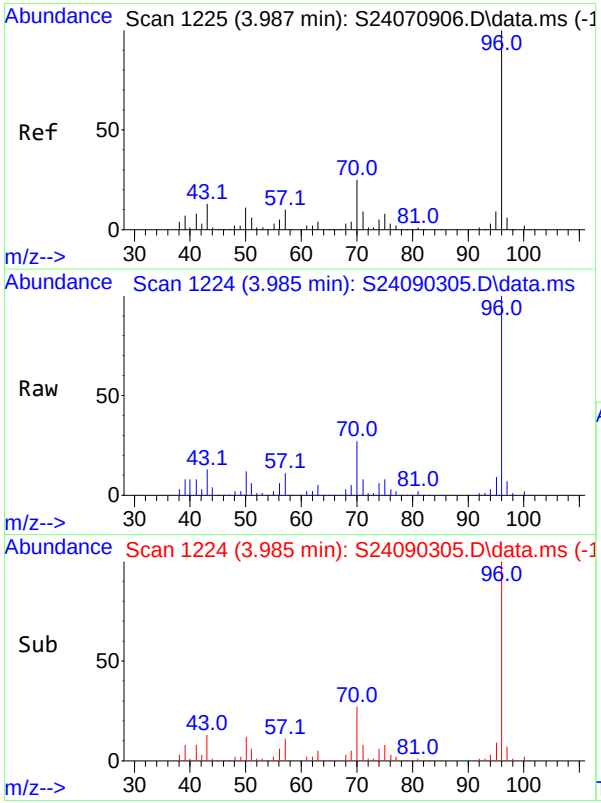
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090305.D
Acq On : 03 Sep 2024 03:10 pm
Operator : KAI
Sample : 24I0002-BS1
Misc : LCS
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 04 10:58:41 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

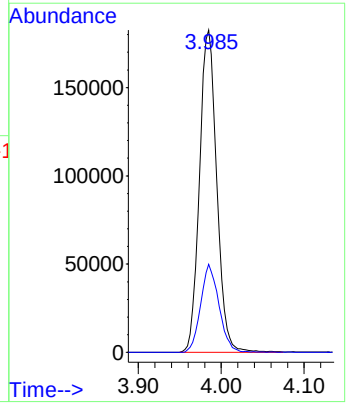


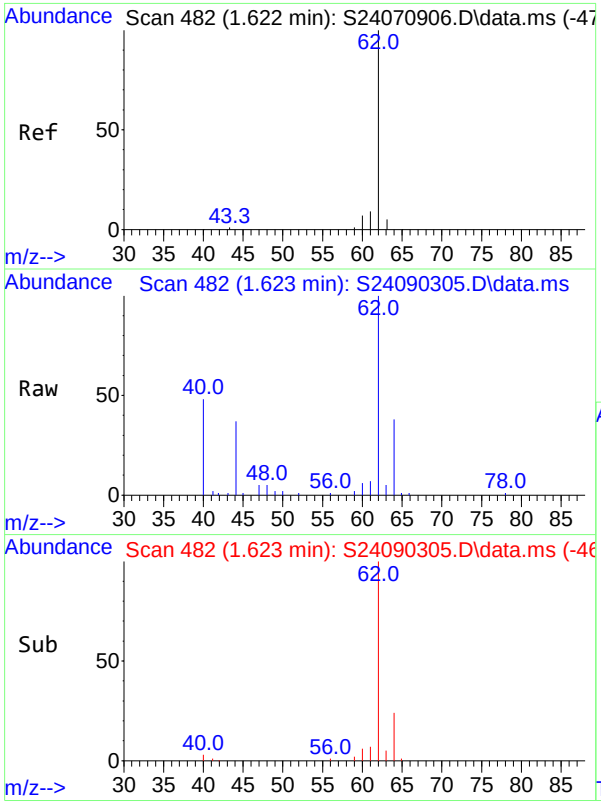


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 96 Resp: 264356

Ion	Ratio	Lower	Upper
96	100		
70	29.0	0.0	84.6

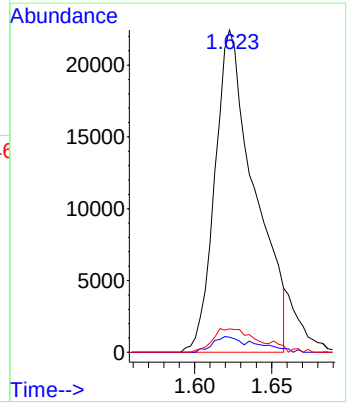


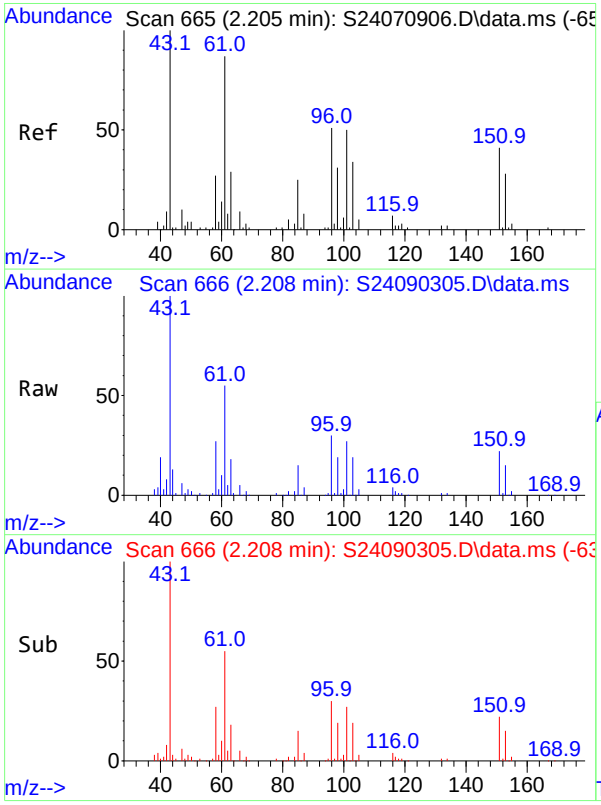


#4
Vinyl Chloride
Concen: 58.67 ng
RT: 1.623 min Scan# 482
Delta R.T. 0.001 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 62 Resp: 40191

Ion	Ratio	Lower	Upper
62	100		
63	5.2	3.9	5.9
61	8.4	6.9	10.3

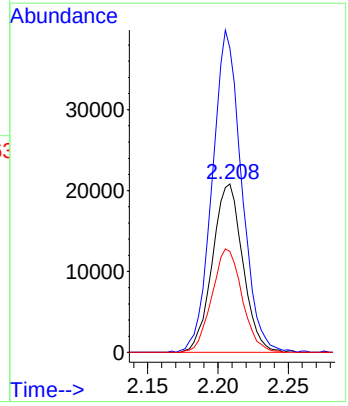


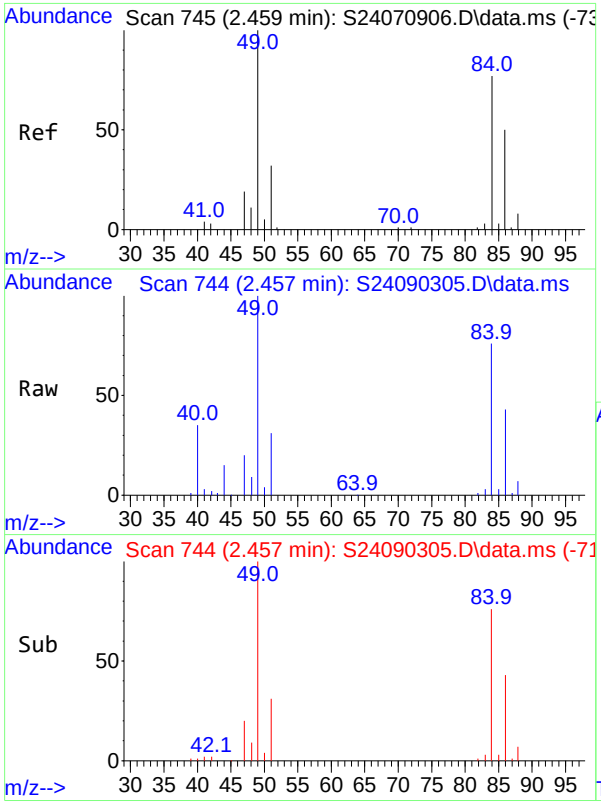


#9
1,1-Dichloroethene
Concen: 51.15 ng
RT: 2.208 min Scan# 666
Delta R.T. 0.004 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 96 Resp: 31287

Ion	Ratio	Lower	Upper
96	100		
61	184.9	141.5	212.3
63	61.2	46.5	69.7

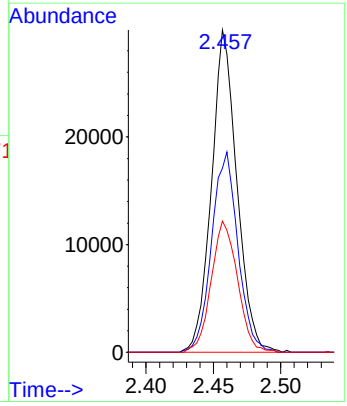


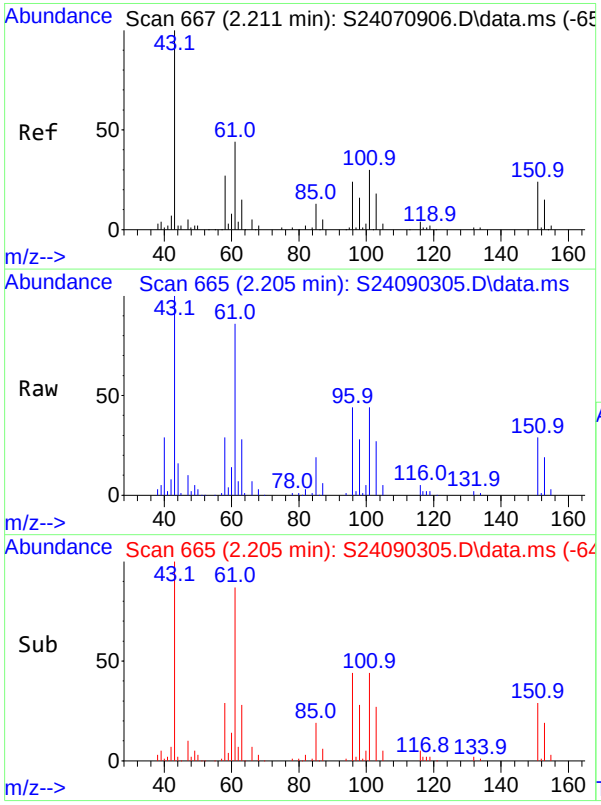


#10
Methylene Chloride
Concen: 53.76 ng
RT: 2.457 min Scan# 744
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 84 Resp: 39319

Ion	Ratio	Lower	Upper
84	100		
86	64.3	50.1	75.1
51	42.2	32.3	48.5

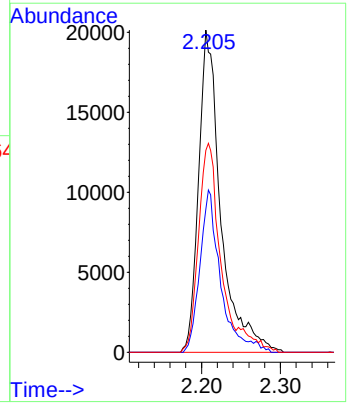


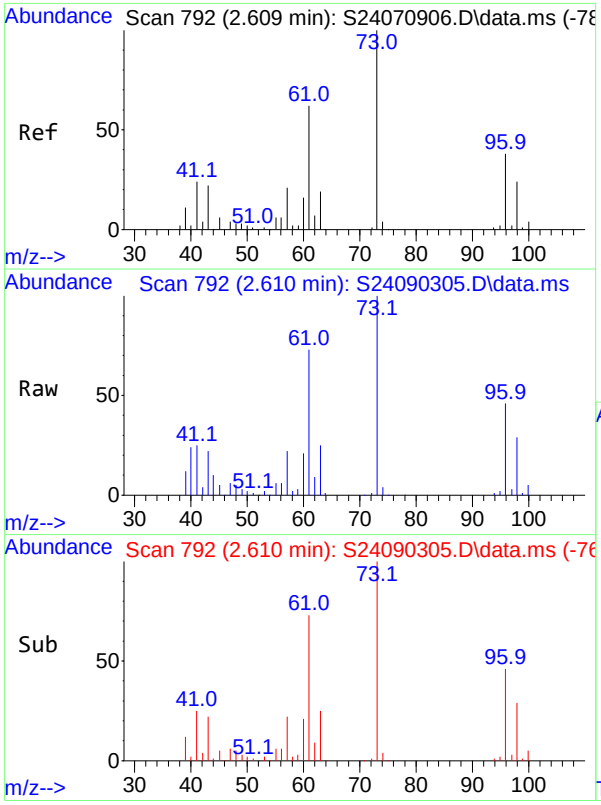


#11
1,1,2-Trichlorotrifluoroethane (Fr.113)
Concen: 55.58 ng
RT: 2.205 min Scan# 665
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:101 Resp: 39458

Ion	Ratio	Lower	Upper
101	100		
153	47.3	39.0	58.4
103	66.4	51.3	76.9

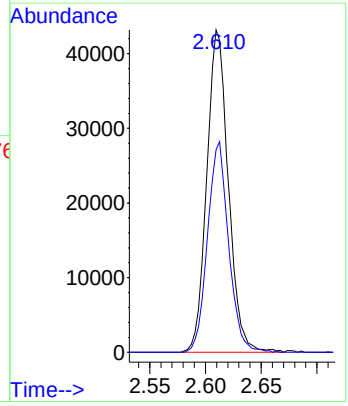


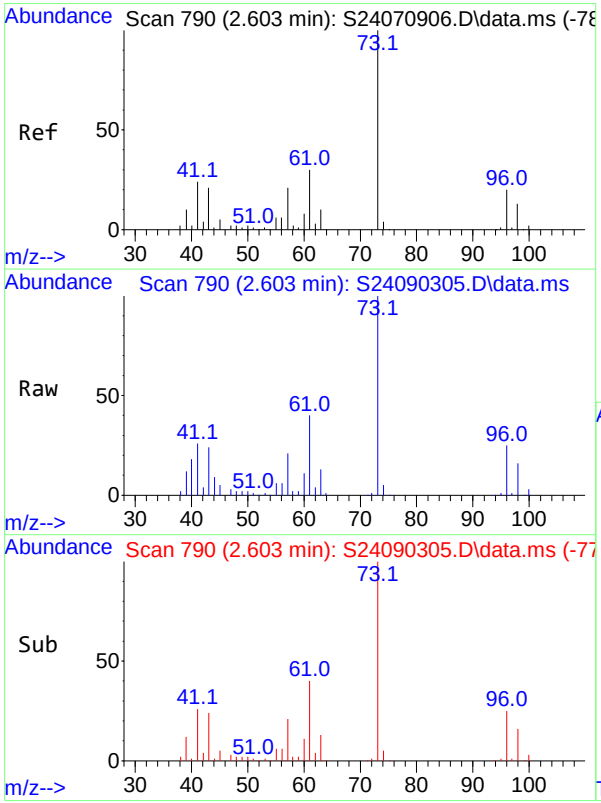


#14
trans-1,2-Dichloroethene
Concen: 54.76 ng
RT: 2.610 min Scan# 792
Delta R.T. 0.000 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 61 Resp: 58324

Ion	Ratio	Lower	Upper
61	100		
96	63.8	52.4	78.6

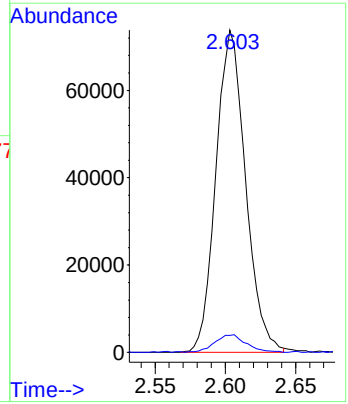


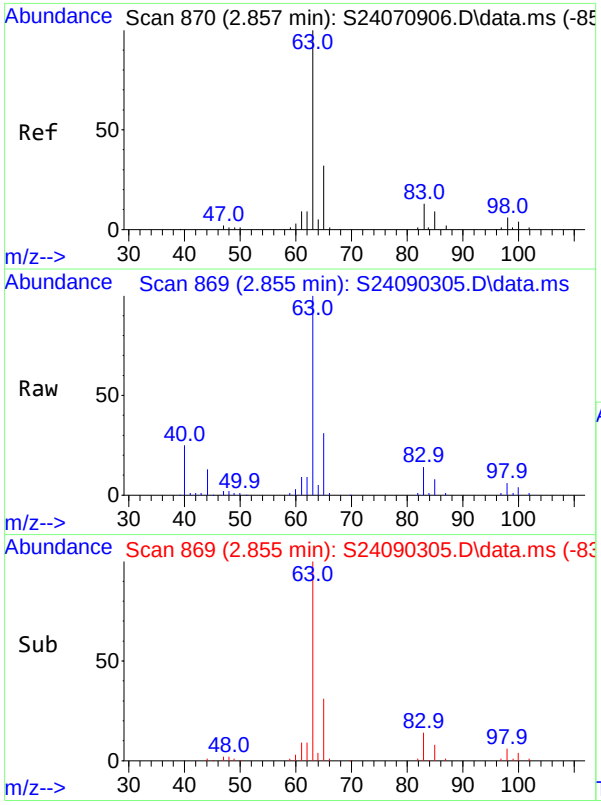


#15
Methyl-t-butyl ether
Concen: 50.64 ng
RT: 2.603 min Scan# 790
Delta R.T. 0.001 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 73 Resp: 108174

Ion	Ratio	Lower	Upper
73	100		
45	5.9	4.3	6.5

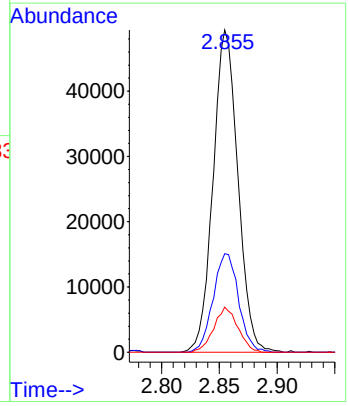


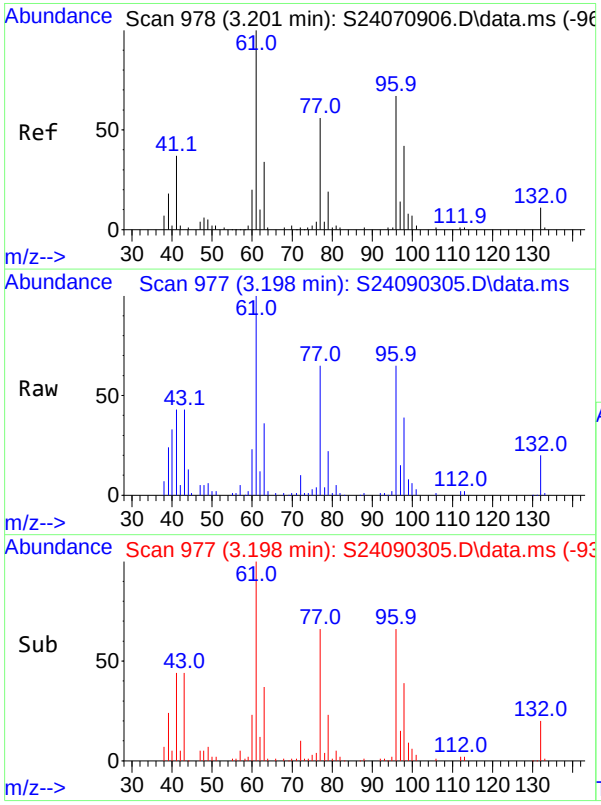


#16
1,1-Dichloroethane
Concen: 55.98 ng
RT: 2.855 min Scan# 869
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 63 Resp: 73964

Ion	Ratio	Lower	Upper
63	100		
65	31.4	25.8	38.6
83	13.6	10.7	16.1

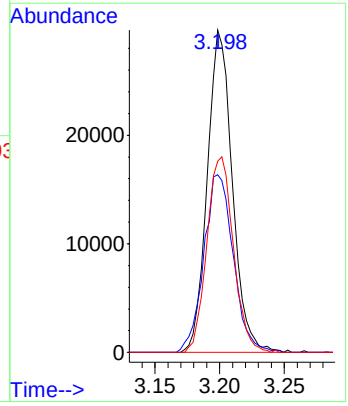


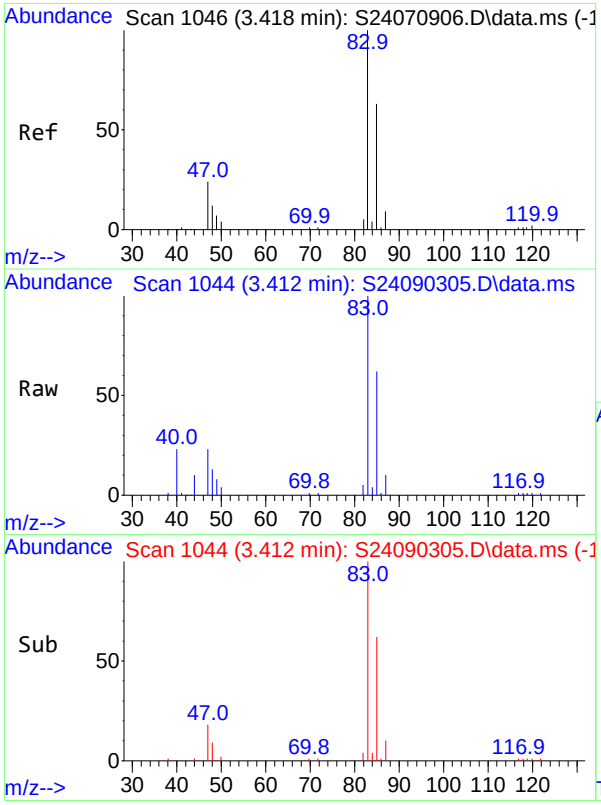


#18
cis-1,2-Dichloroethene
Concen: 49.67 ng
RT: 3.198 min Scan# 977
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 96 Resp: 40041

Ion	Ratio	Lower	Upper
96	100		
63	64.9	47.2	70.8
98	64.1	52.6	79.0

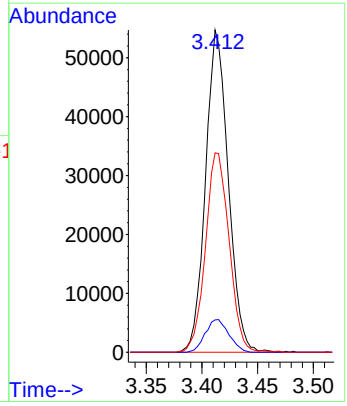


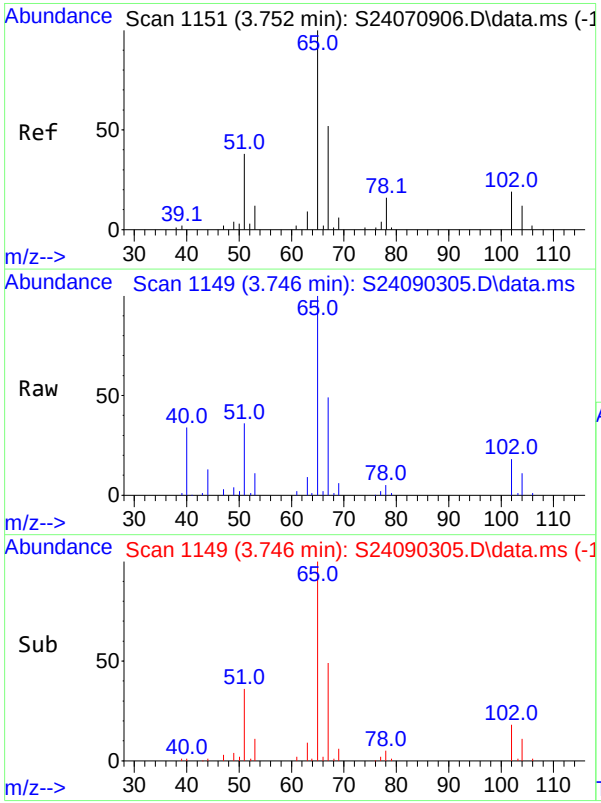


#21
Chloroform
Concen: 56.59 ng
RT: 3.412 min Scan# 1044
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 83 Resp: 77695

Ion	Ratio	Lower	Upper
83	100		
87	10.6	8.2	12.2
85	64.3	51.9	77.9

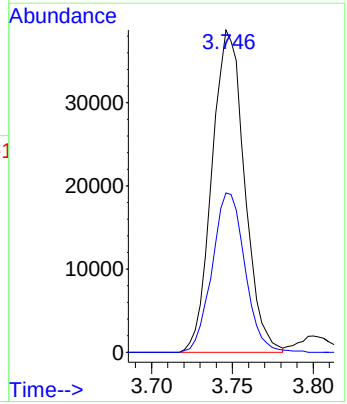


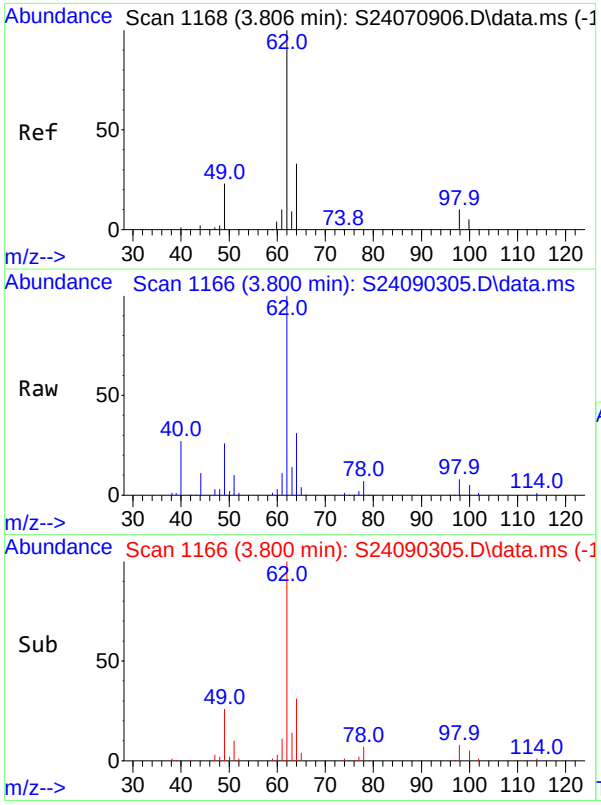


#23
1,2-DCA-d4
Concen: 56.20 ng
RT: 3.746 min Scan# 1149
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 65 Resp: 54439

Ion	Ratio	Lower	Upper
65	100		
67	49.7	41.7	62.5

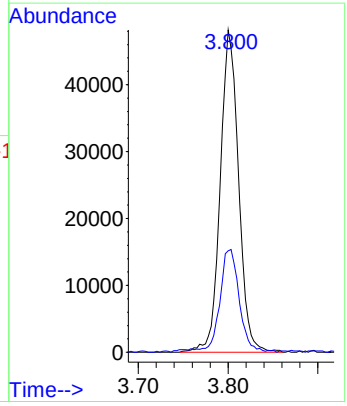


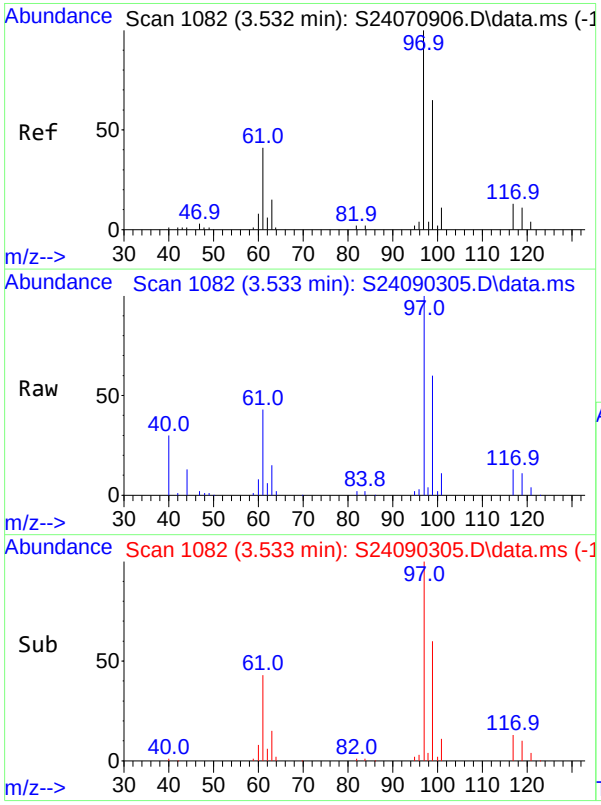


#24
1,2-Dichloroethane
Concen: 57.75 ng
RT: 3.800 min Scan# 1166
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 62 Resp: 68240

Ion	Ratio	Lower	Upper
62	100		
64	34.6	27.0	40.6

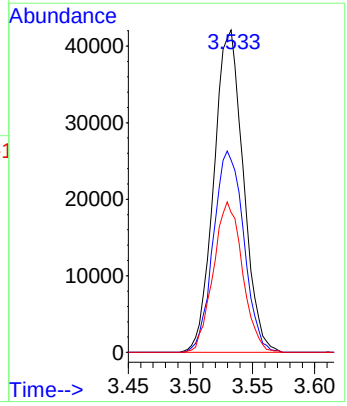


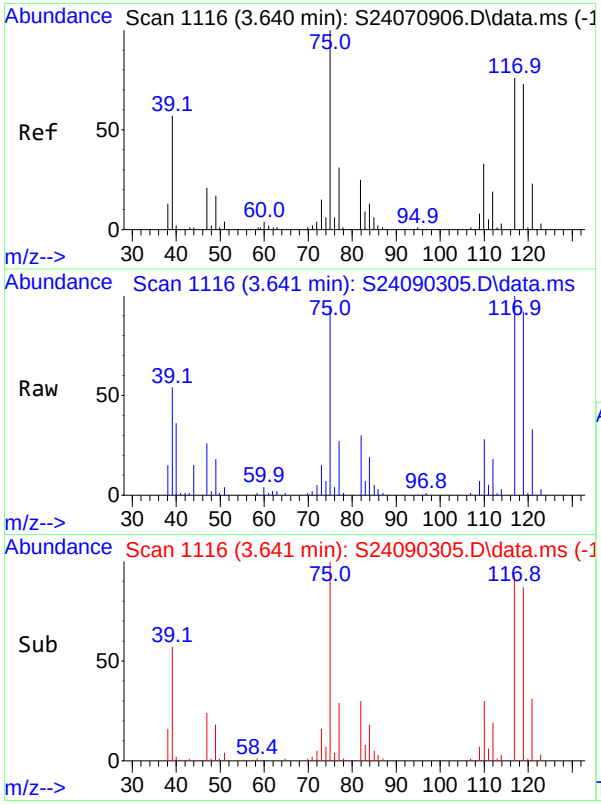


#25
1,1,1-Trichloroethane
Concen: 55.46 ng
RT: 3.533 min Scan# 1082
Delta R.T. 0.001 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 97 Resp: 69490

Ion	Ratio	Lower	Upper
97	100		
99	64.4	51.2	76.8
61	46.2	35.6	53.4

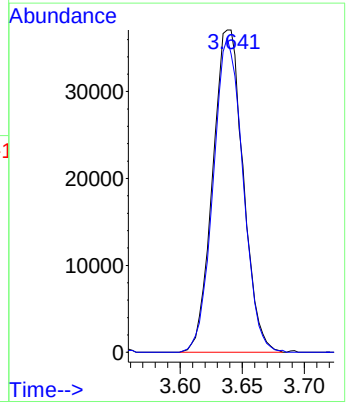


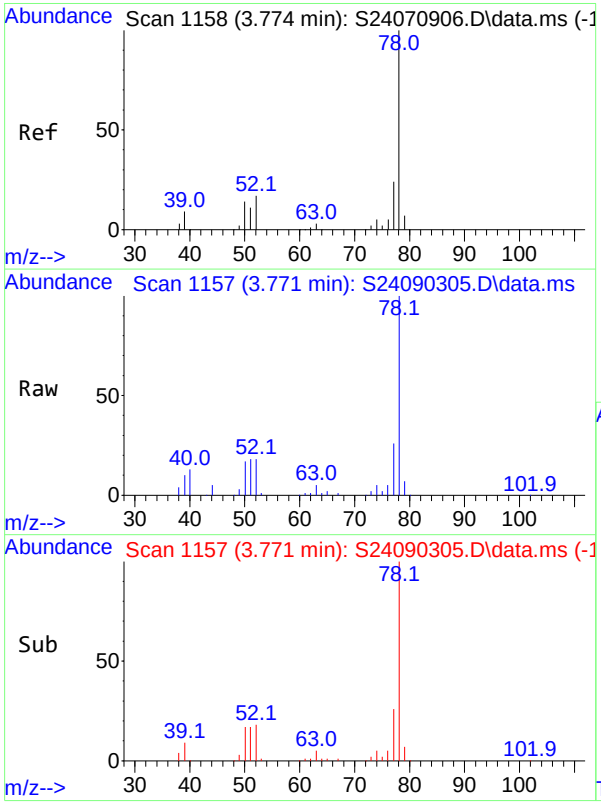


#27
Carbon Tetrachloride
Concen: 57.46 ng
RT: 3.641 min Scan# 1116
Delta R.T. 0.001 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:117 Resp: 63401

Ion	Ratio	Lower	Upper
117	100		
119	94.9	76.4	114.6

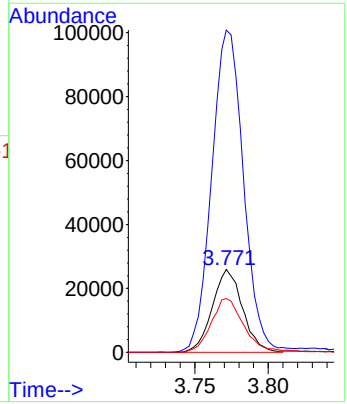


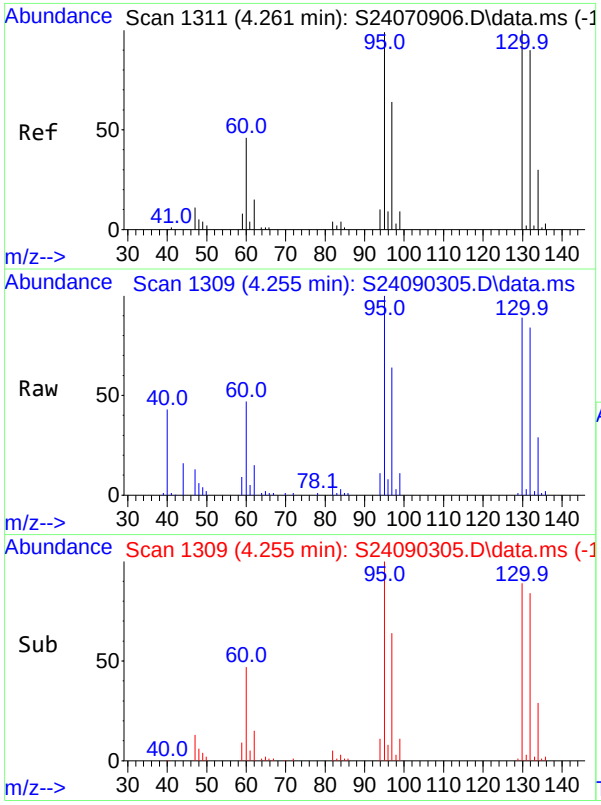


#28
Benzene
Concen: 51.13 ng
RT: 3.771 min Scan# 1157
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 77 Resp: 37213

Ion	Ratio	Lower	Upper
77	100		
78	407.6	326.8	490.2
50	69.2	51.8	77.8

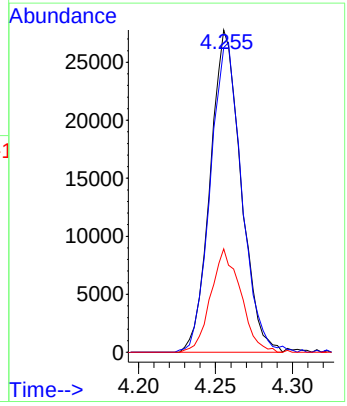


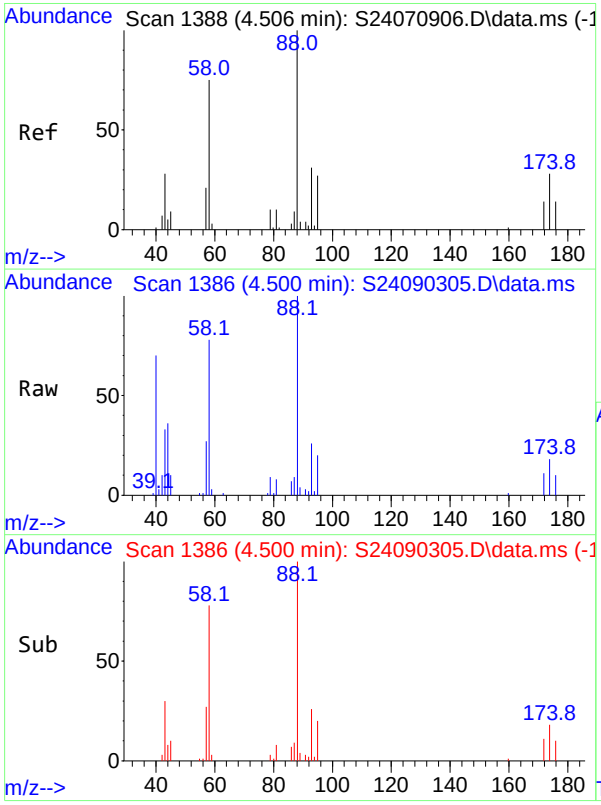


#31
Trichloroethene
Concen: 48.96 ng
RT: 4.255 min Scan# 1309
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:130 Resp: 38506

Ion	Ratio	Lower	Upper
130	100		
132	98.1	76.5	114.7
134	31.2	24.2	36.4

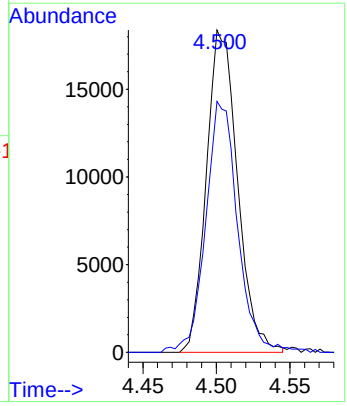


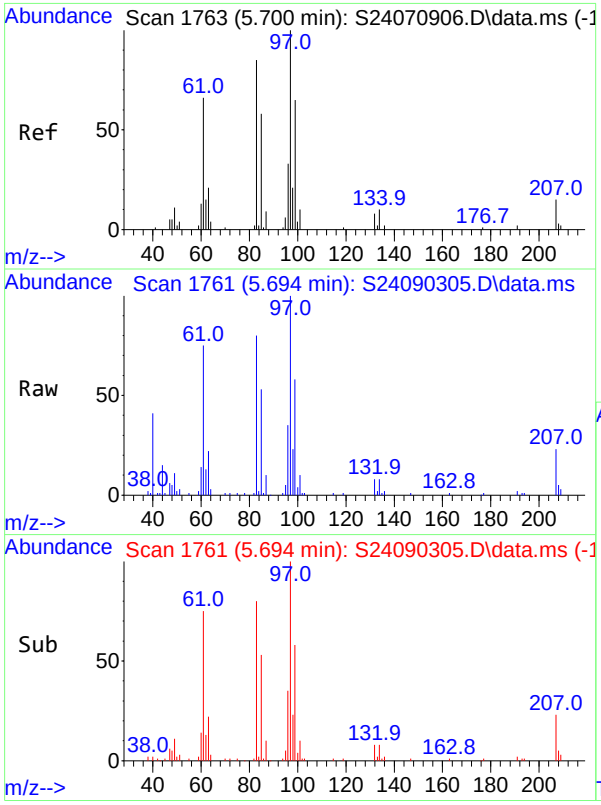


#34
1,4-Dioxane
Concen: 45.99 ng
RT: 4.500 min Scan# 1386
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 88 Resp: 27147

Ion	Ratio	Lower	Upper
88	100		
58	79.1	59.5	89.3

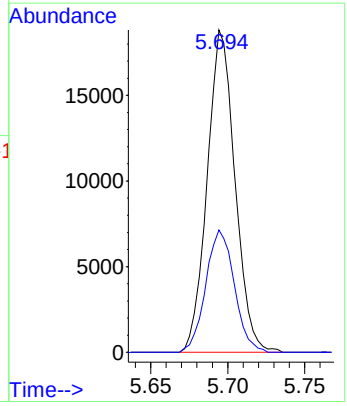


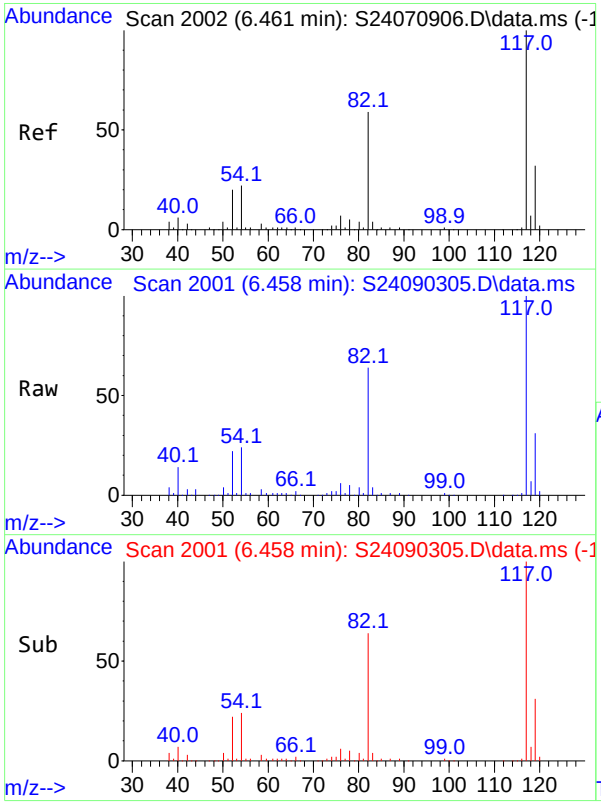


#38
1,1,2-Trichloroethane
Concen: 53.78 ng
RT: 5.694 min Scan# 1761
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 99 Resp: 23648

Ion	Ratio	Lower	Upper
99	100		
63	39.0	27.8	41.8

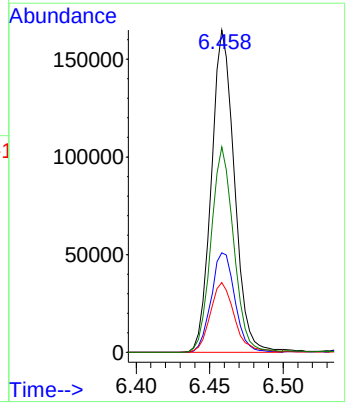


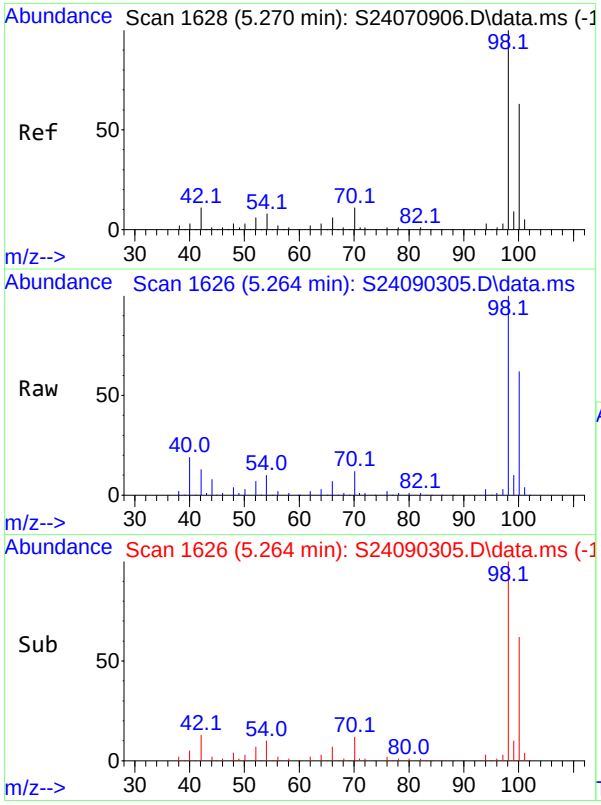


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:117 Resp: 180231

Ion	Ratio	Lower	Upper
117	100		
119	32.0	25.8	38.6
52	22.9	16.7	25.1
82	62.7	47.8	71.8

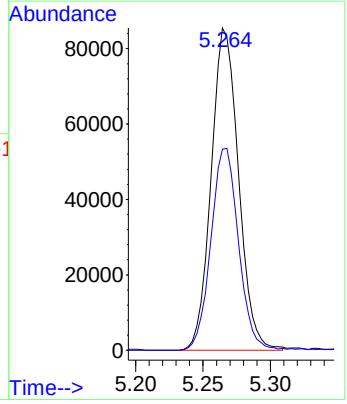


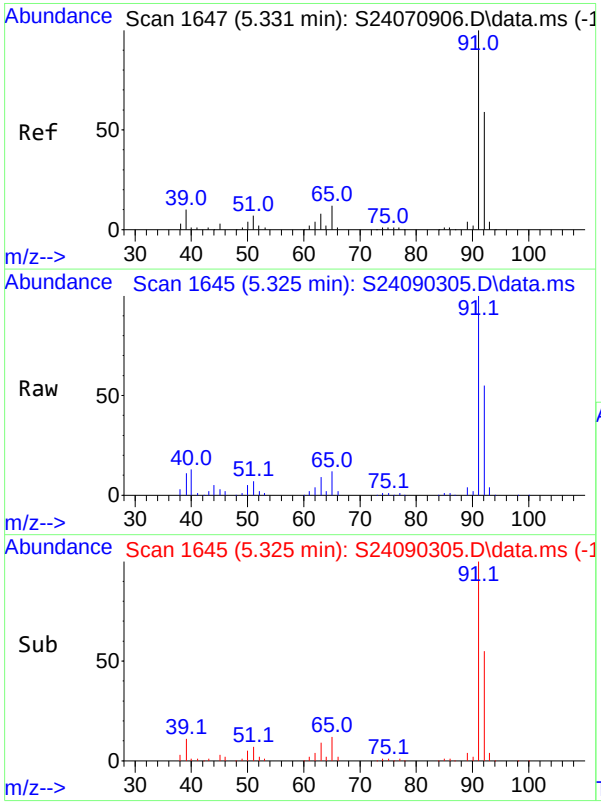


#40
Toluene-d8
Concen: 50.13 ng
RT: 5.264 min Scan# 1626
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 98 Resp: 120732

Ion	Ratio	Lower	Upper
98	100		
100	63.1	51.1	76.7

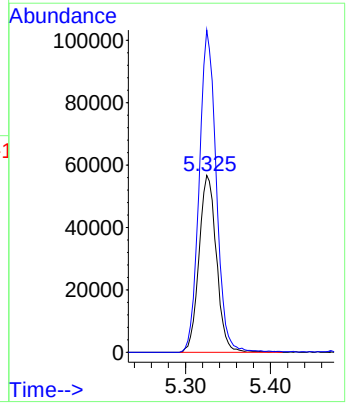


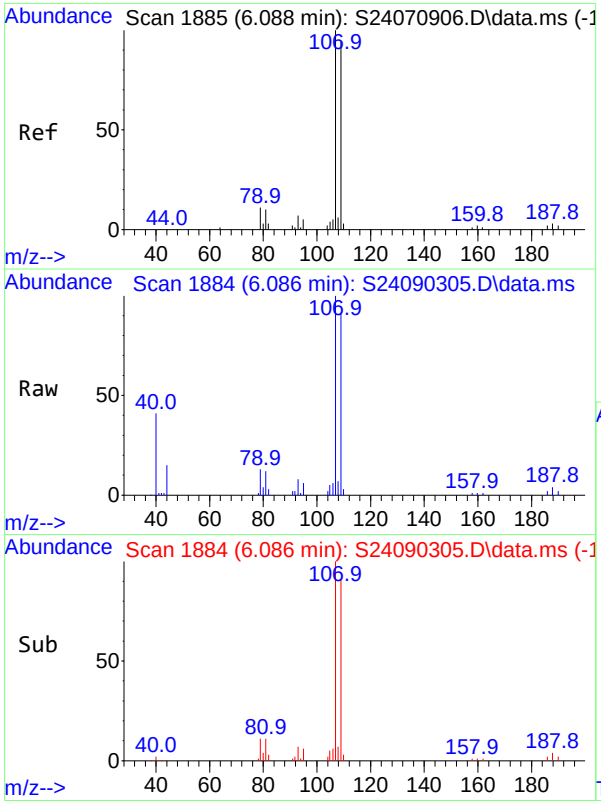


#41
Toluene
Concen: 48.05 ng
RT: 5.325 min Scan# 1645
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 92 Resp: 81207

Ion	Ratio	Lower	Upper
92	100		
91	179.6	141.3	211.9

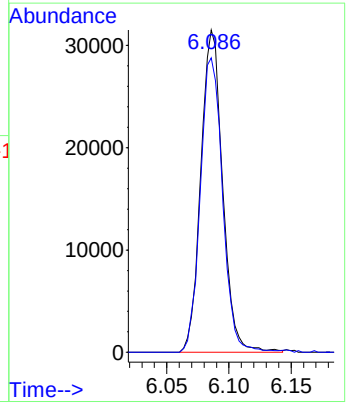


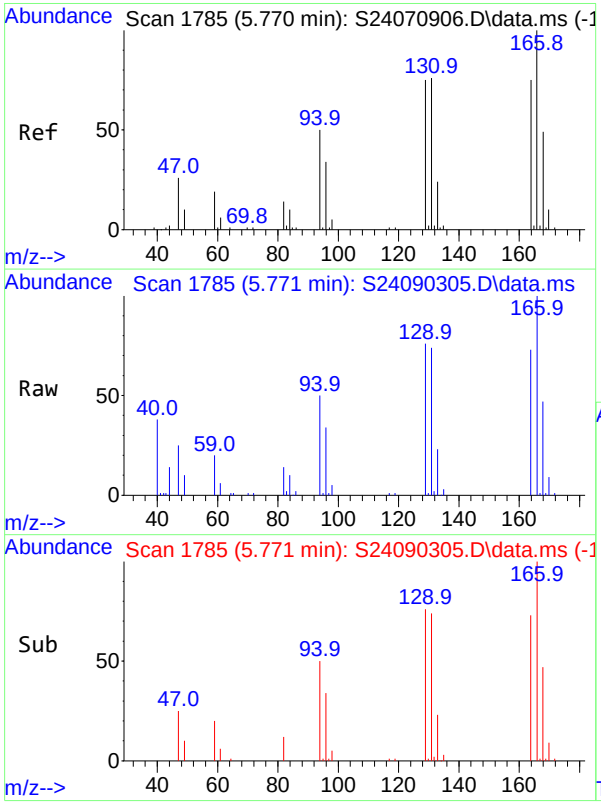


#46
1,2-Dibromoethane (EDB)
Concen: 56.58 ng
RT: 6.086 min Scan# 1884
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:107 Resp: 38407

Ion	Ratio	Lower	Upper
107	100		
109	93.2	74.3	111.5

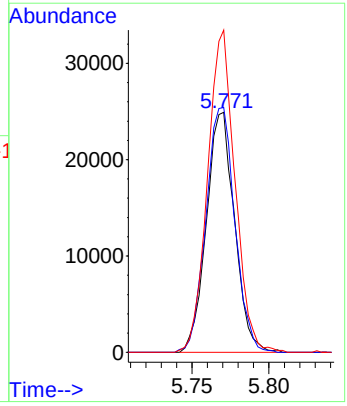


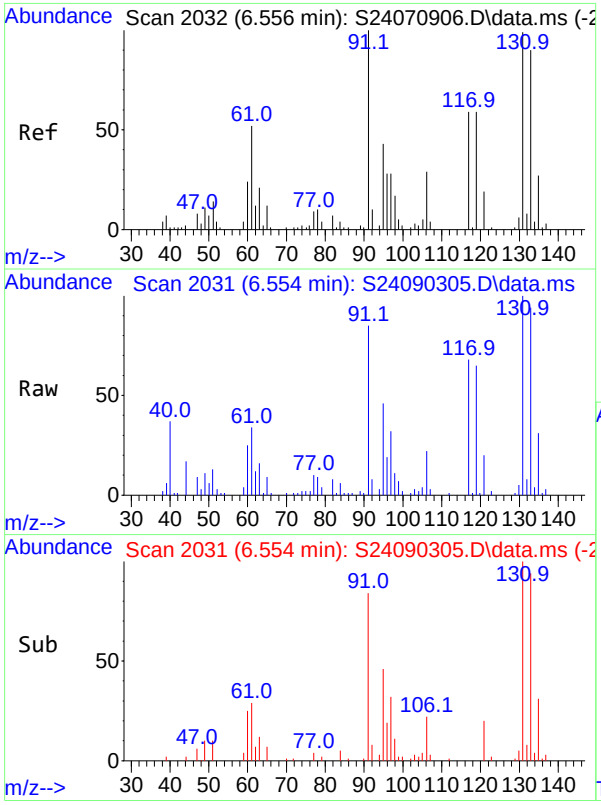


#47
Tetrachloroethene
Concen: 49.74 ng
RT: 5.771 min Scan# 1785
Delta R.T. 0.000 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:131 Resp: 31723

Ion	Ratio	Lower	Upper
131	100		
129	104.9	82.9	124.3
166	130.4	103.7	155.5

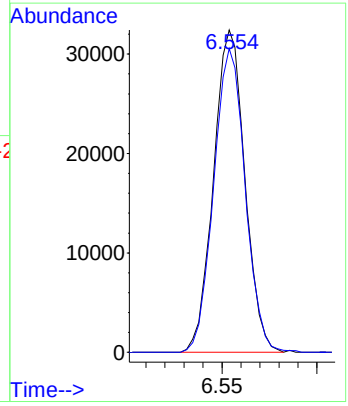


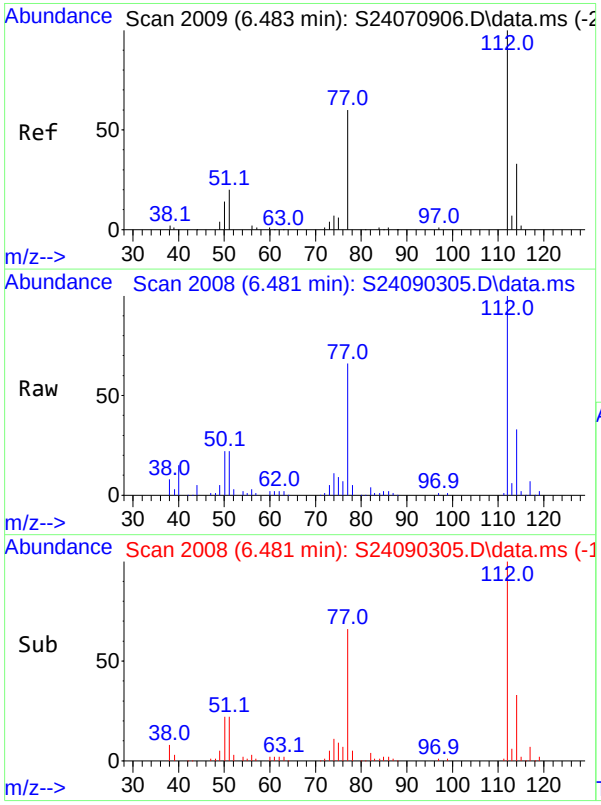


#48
1,1,1,2-Tetrachloroethane
Concen: 56.71 ng
RT: 6.554 min Scan# 2031
Delta R.T. -0.002 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:131 Resp: 37218

Ion	Ratio	Lower	Upper
131	100		
133	94.8	75.8	113.8

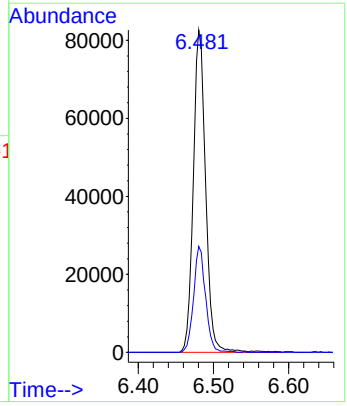


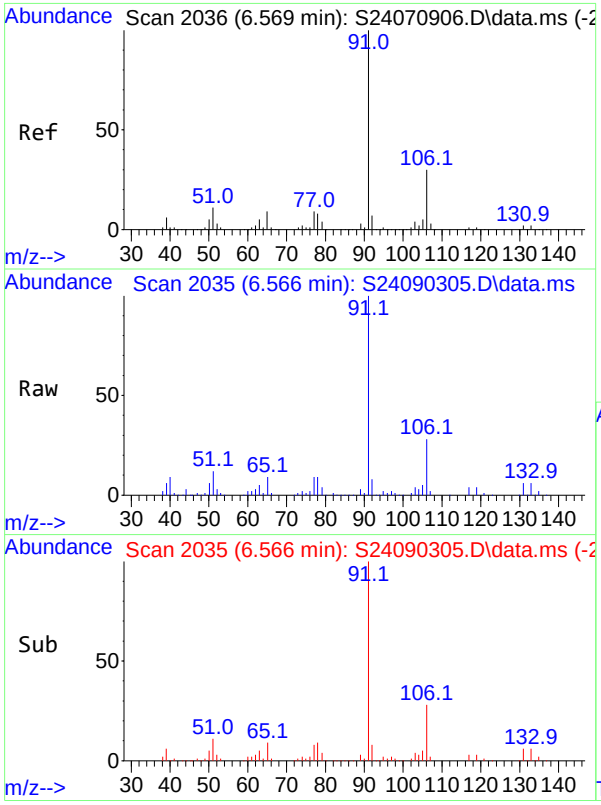


#49
Chlorobenzene
Concen: 49.32 ng
RT: 6.481 min Scan# 2008
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:112 Resp: 94423

Ion	Ratio	Lower	Upper
112	100		
114	31.9	25.8	38.8

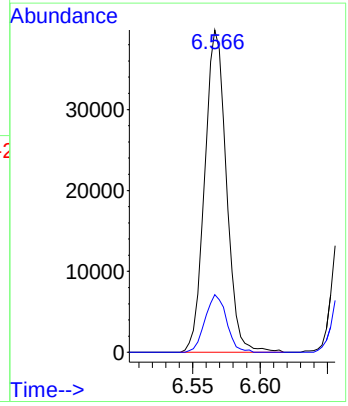


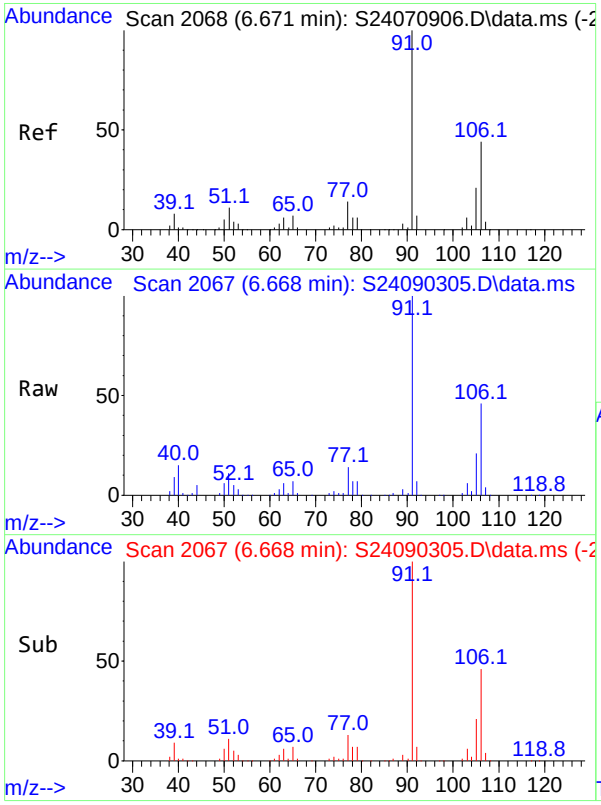


#50
Ethylbenzene
Concen: 46.25 ng
RT: 6.566 min Scan# 2035
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:106 Resp: 44592

Ion	Ratio	Lower	Upper
106	100		
105	17.7	13.3	19.9

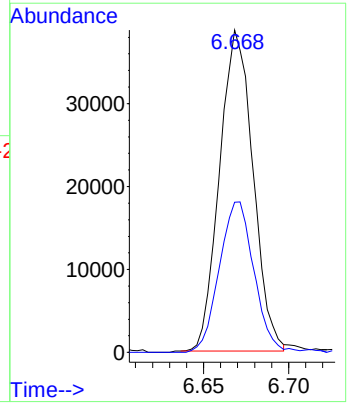


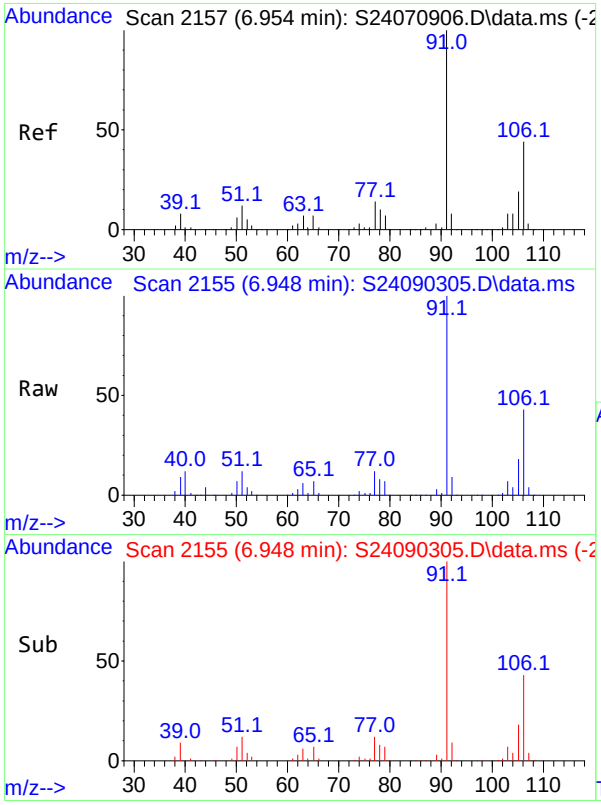


#51
p & m-Xylene
Concen: 44.89 ng
RT: 6.668 min Scan# 2067
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:106 Resp: 52999

Ion	Ratio	Lower	Upper
106	100		
105	48.3	38.2	57.4

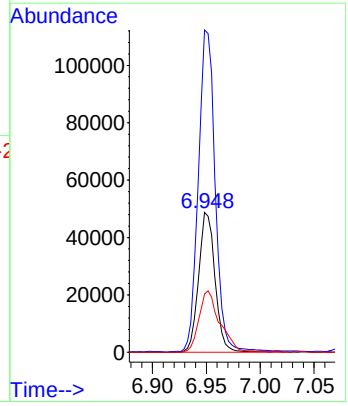


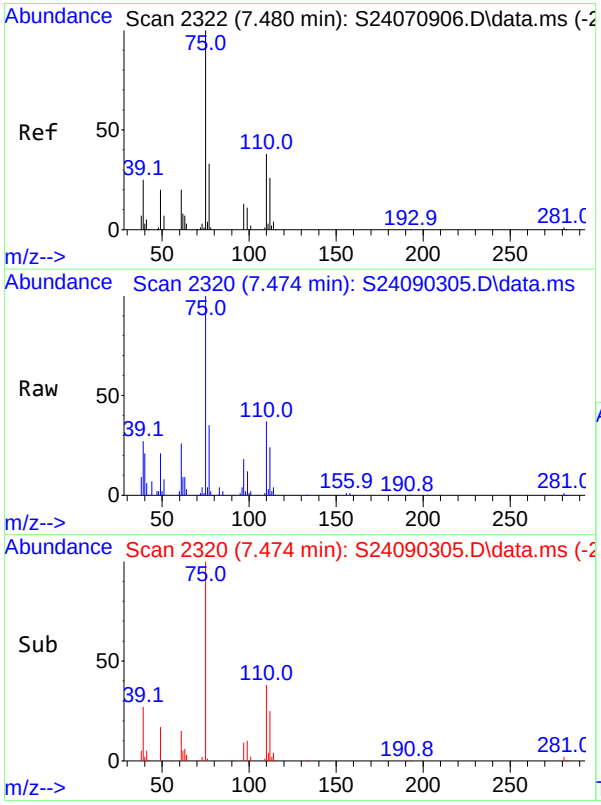


#56
o-Xylene
Concen: 46.61 ng
RT: 6.948 min Scan# 2155
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:106 Resp: 52304

Ion	Ratio	Lower	Upper
106	100		
91	238.2	188.8	283.2
105	55.8	44.0	66.0

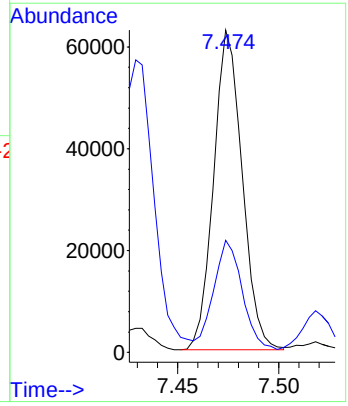


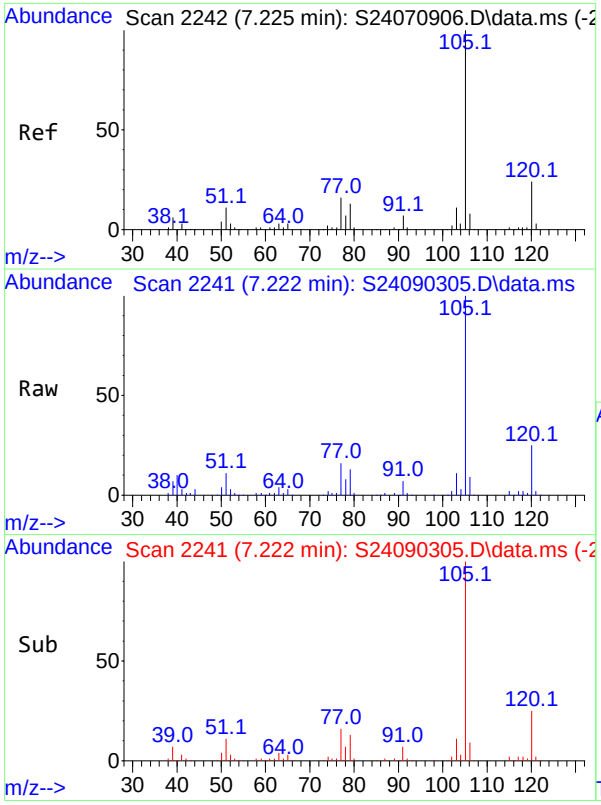


#57
1,2,3-Trichloropropane
Concen: 55.24 ng
RT: 7.474 min Scan# 2320
Delta R.T. -0.006 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion: 75 Resp: 61807

Ion	Ratio	Lower	Upper
75	100		
77	33.9	26.7	40.1

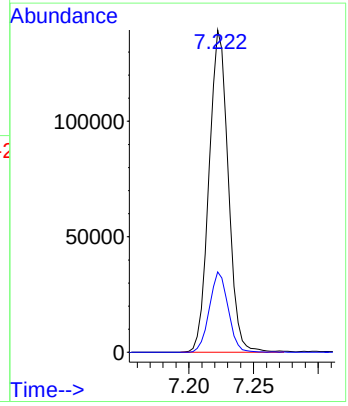


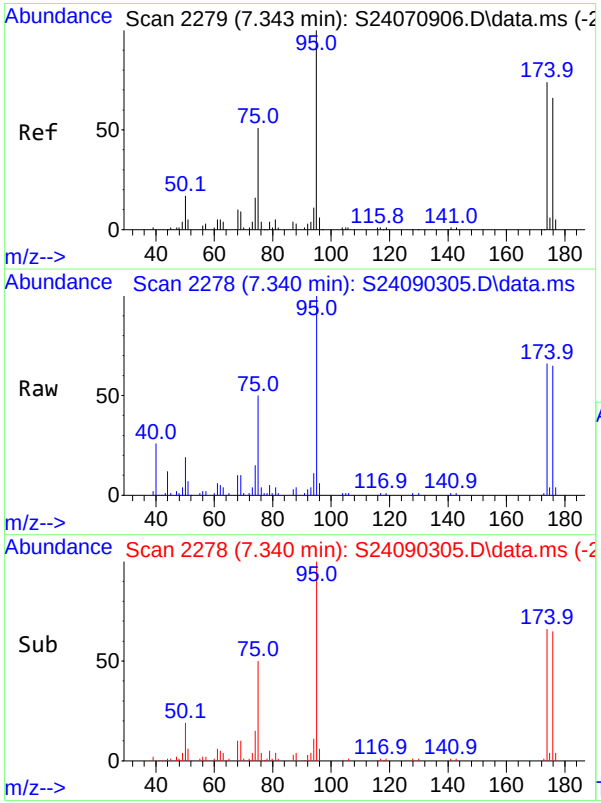


#58
Isopropylbenzene
Concen: 47.14 ng
RT: 7.222 min Scan# 2241
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:105 Resp: 143776

Ion	Ratio	Lower	Upper
105	100		
120	24.3	19.8	29.6

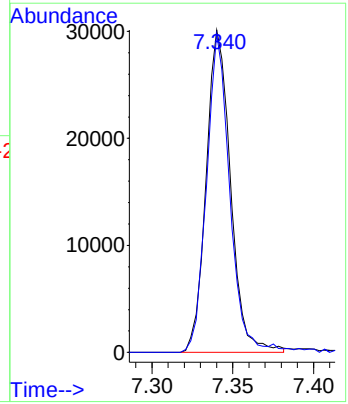


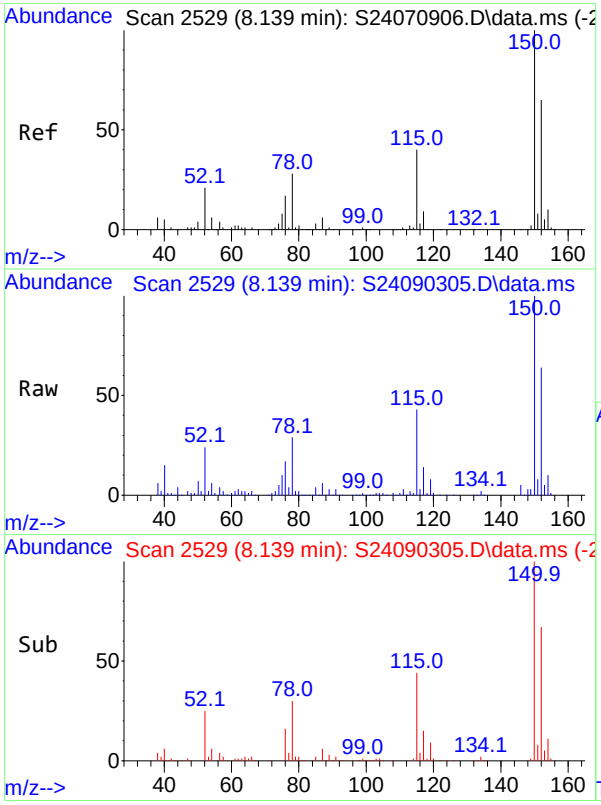


#59
Bromofluorobenzene
Concen: 43.06 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:174 Resp: 31809

Ion	Ratio	Lower	Upper
174	100		
176	93.6	75.0	112.6

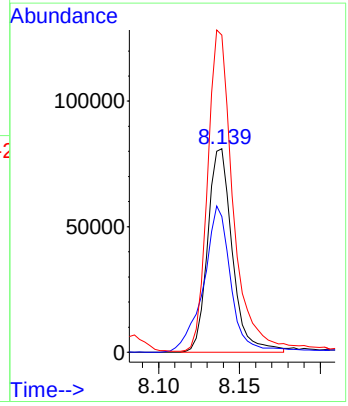


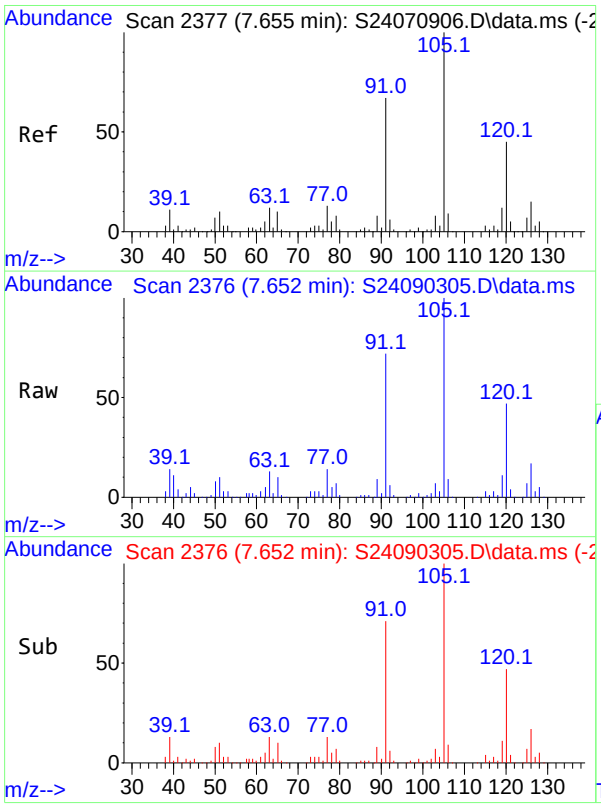


#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.001 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:152 Resp: 86605

Ion	Ratio	Lower	Upper
152	100		
115	79.0	60.5	90.7
150	161.0	129.6	194.4

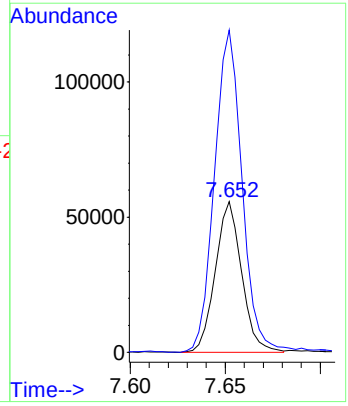


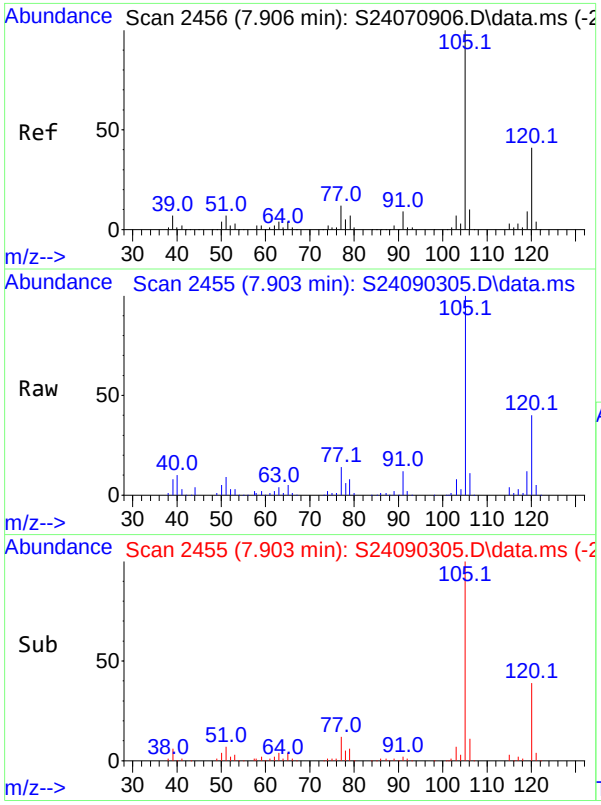


#65
1,3,5-Trimethylbenzene
Concen: 46.78 ng
RT: 7.652 min Scan# 2376
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:120 Resp: 54108

Ion	Ratio	Lower	Upper
120	100		
105	222.5	175.8	263.8

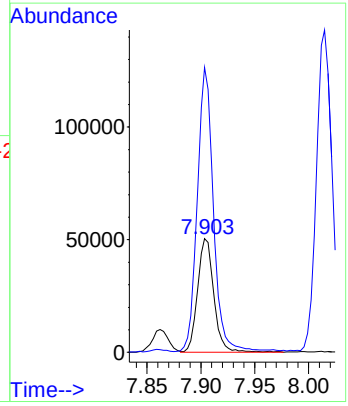


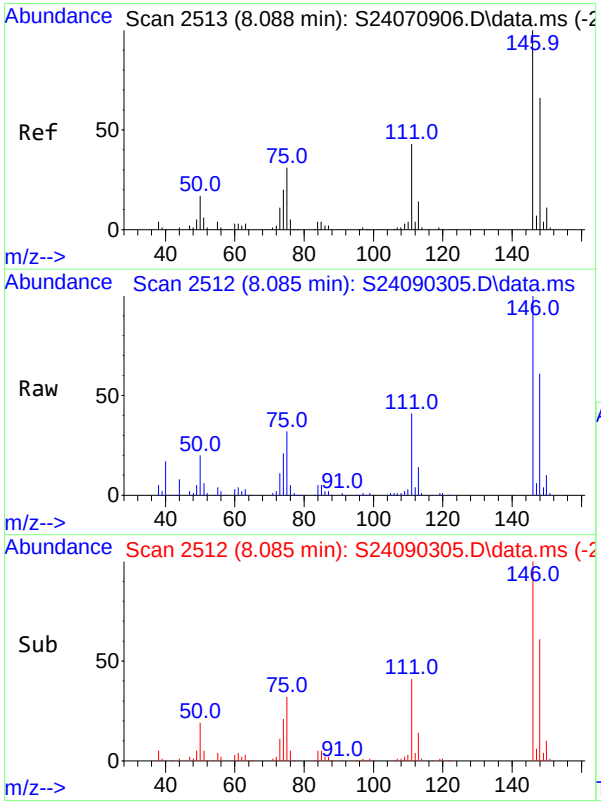


#68
1,2,4-Trimethylbenzene
Concen: 48.90 ng
RT: 7.903 min Scan# 2455
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:120 Resp: 53277

Ion	Ratio	Lower	Upper
120	100		
105	241.8	191.6	287.4

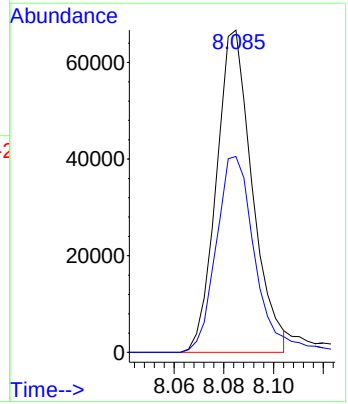


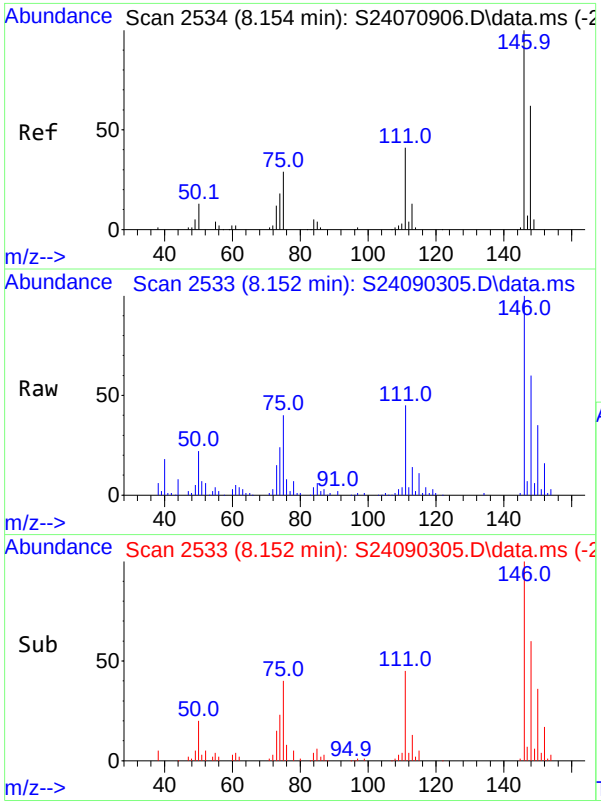


#70
1,3-Dichlorobenzene
Concen: 50.94 ng
RT: 8.085 min Scan# 2512
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:146 Resp: 66879

Ion	Ratio	Lower	Upper
146	100		
148	63.5	51.4	77.0

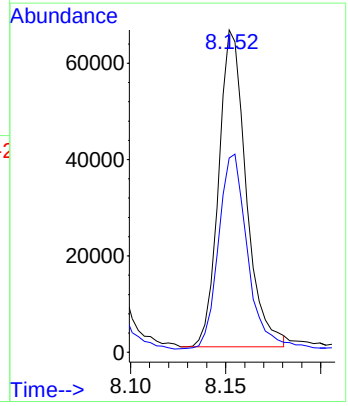


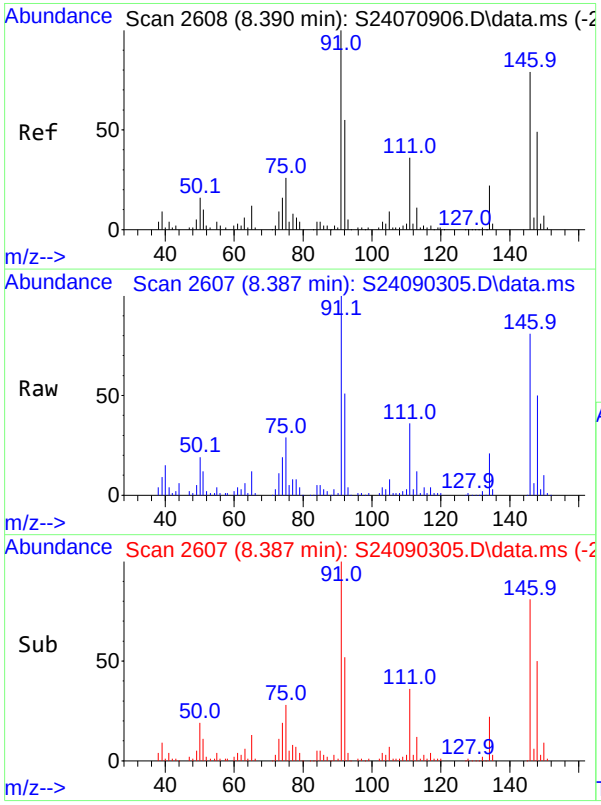


#72
1,4-Dichlorobenzene
Concen: 47.07 ng
RT: 8.152 min Scan# 2533
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:146 Resp: 66403

Ion	Ratio	Lower	Upper
146	100		
148	64.4	51.2	76.8

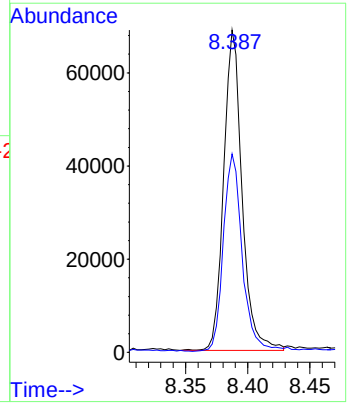


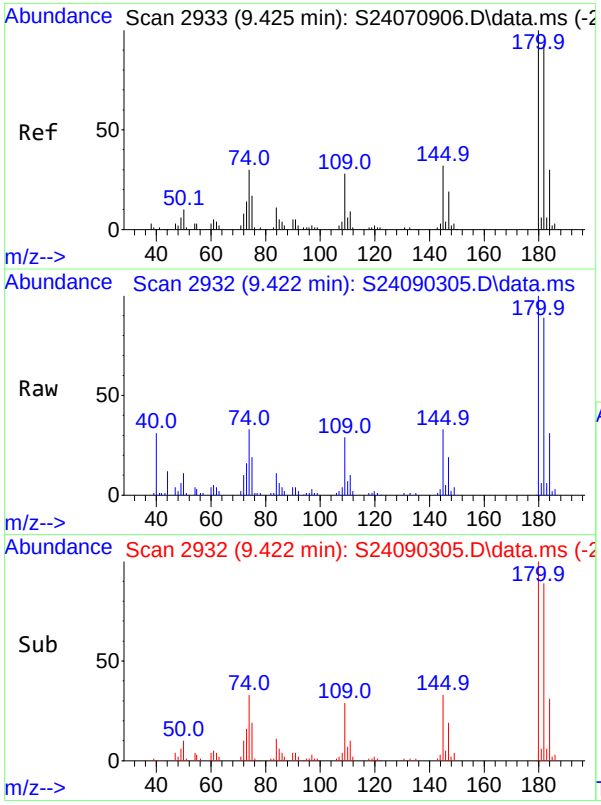


#73
1,2-Dichlorobenzene
Concen: 49.87 ng
RT: 8.387 min Scan# 2607
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:146 Resp: 70628

Ion	Ratio	Lower	Upper
146	100		
148	63.2	50.6	75.8

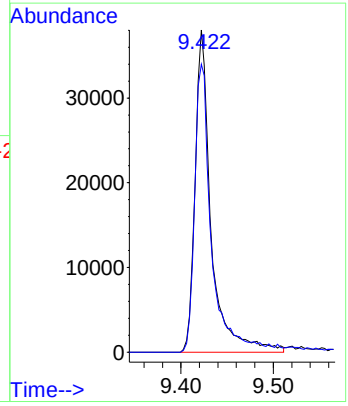


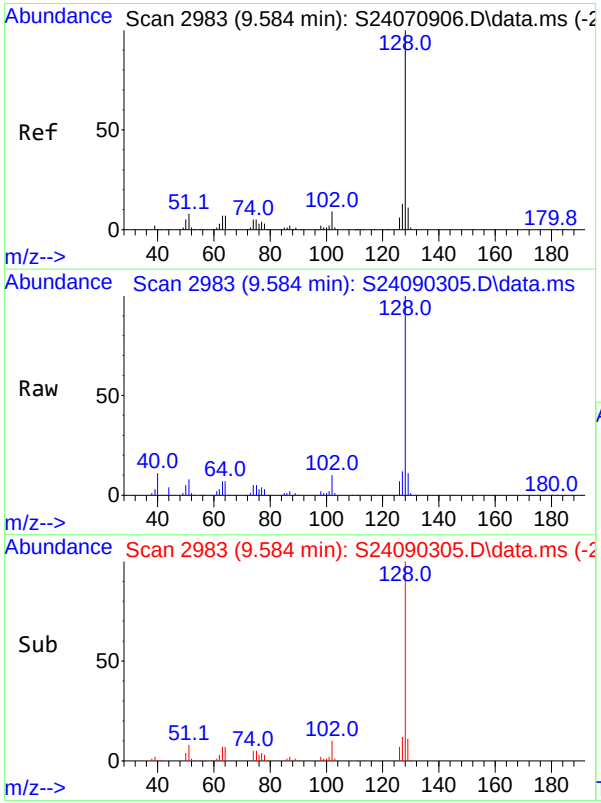


#79
1,2,4-Trichlorobenzene
Concen: 46.18 ng
RT: 9.422 min Scan# 2932
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:180 Resp: 45990

Ion	Ratio	Lower	Upper
180	100		
182	94.4	75.9	113.9

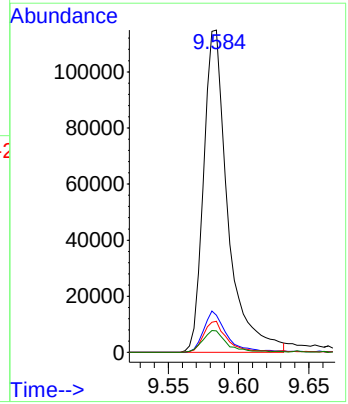


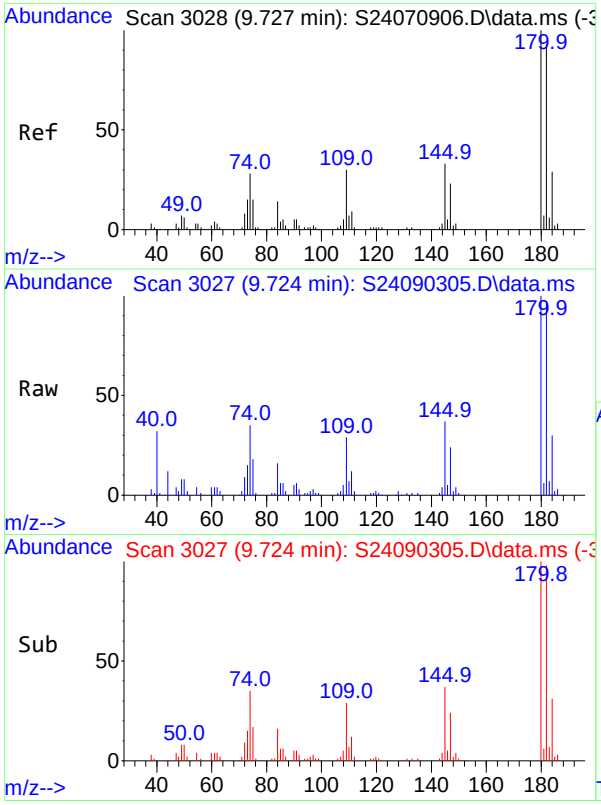


#80
Naphthalene
Concen: 45.95 ng
RT: 9.584 min Scan# 2983
Delta R.T. 0.000 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:128 Resp: 138346

Ion	Ratio	Lower	Upper
128	100		
127	12.2	10.1	15.1
102	9.5	7.4	11.0
64	6.9	5.5	8.3

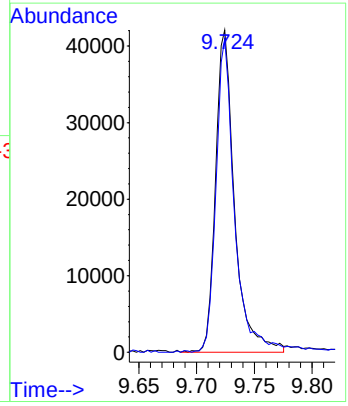


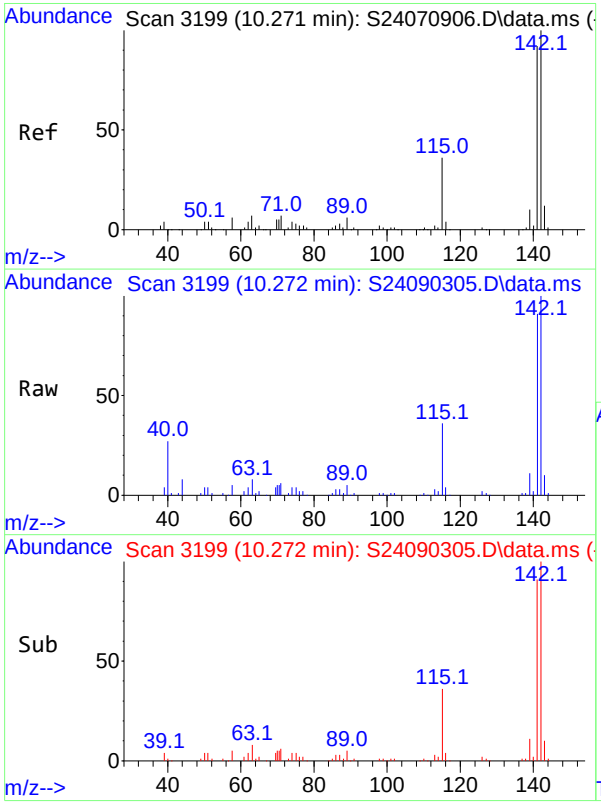


#82
1,2,3-Trichlorobenzene
Concen: 44.55 ng
RT: 9.724 min Scan# 3027
Delta R.T. -0.003 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:180 Resp: 48028

Ion	Ratio	Lower	Upper
180	100		
182	94.8	74.5	111.7

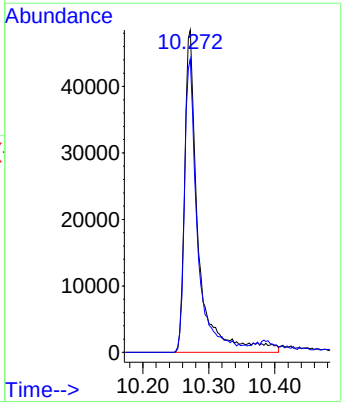




#84
2-Methylnaphthalene
Concen: 42.53 ng
RT: 10.272 min Scan# 3199
Delta R.T. 0.001 min
Lab File: S24090305.D
Acq: 03 Sep 2024 03:10 pm

Tgt Ion:142 Resp: 69917

Ion	Ratio	Lower	Upper
142	100		
141	93.0	72.1	108.1



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sequence Raw Data

Analysis: TO-17 (Passive)

Analyzed: 9/3/2024 3:39:00PM

Lab Number: B24I002-ICV1

QC Description: LCSD/Second Source Verification/CALV

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090306.D
Acq On : 03 Sep 2024 03:39 pm
Operator : KAI
Sample : B24I002-ICV1
Misc : LCSD
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 10:58:50 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

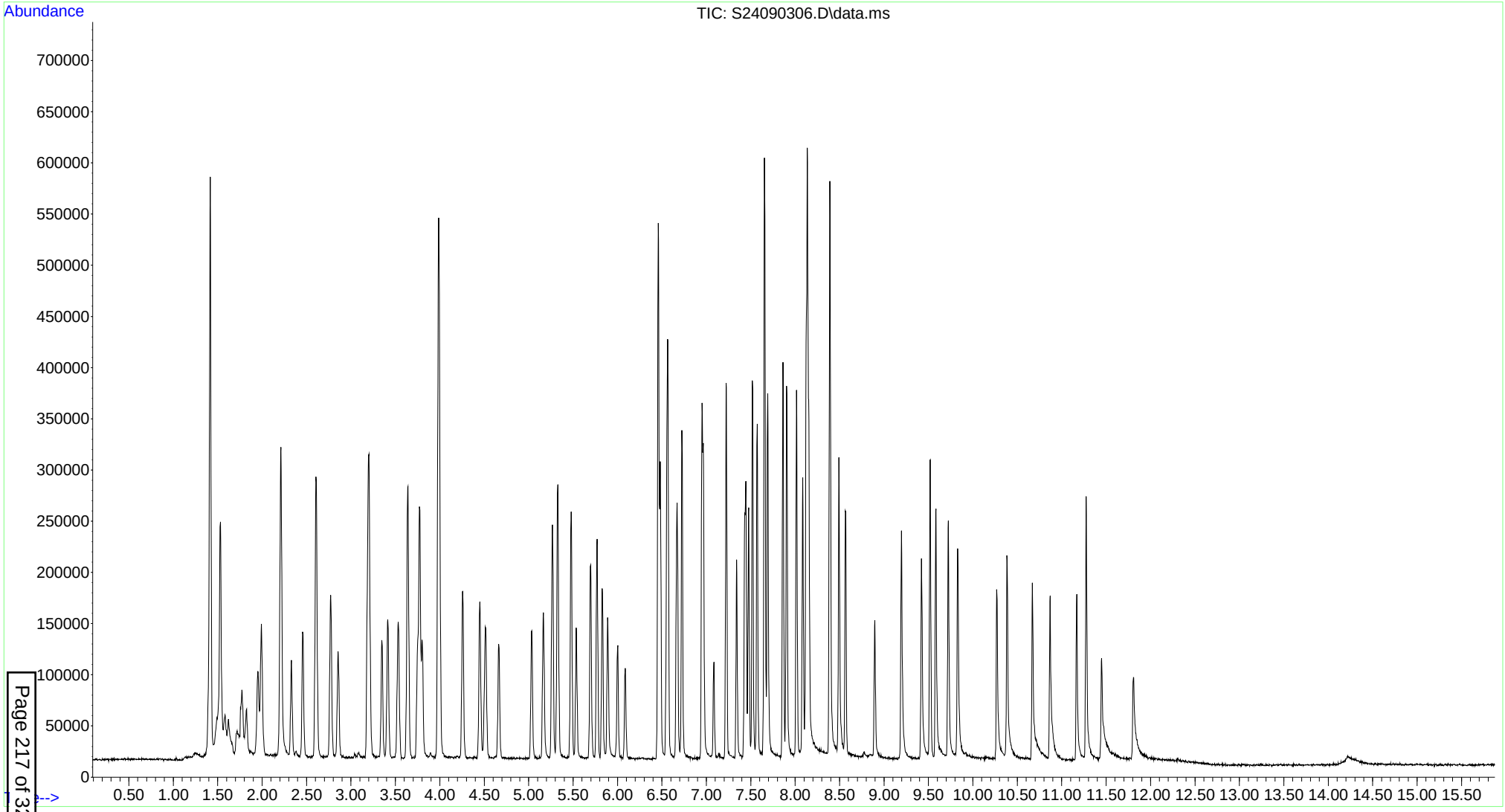
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	269965	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	182053	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	82496	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	54345	54.93	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 54.93%#			
40) Toluene-d8	5.268	98	120732	49.63	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 49.63%#			
59) Bromofluorobenzene	7.340	174	29983	40.18	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 40.18%#			
Target Compounds						Qvalue
4) Vinyl Chloride	1.623	62	33746	48.24	ng	98
9) 1,1-Dichloroethene	2.208	96	30532	48.88	ng	94
10) Methylene Chloride	2.460	84	40077	53.66	ng	97
11) 1,1,2-Trichlorotrifluo...	2.205	101	39205	54.07	ng	98
14) trans-1,2-Dichloroethene	2.613	61	60007	55.17	ng	97
15) Methyl-t-butyl ether	2.603	73	106079	48.62	ng	98
16) 1,1-Dichloroethane	2.855	63	76621	56.79	ng	99
18) cis-1,2-Dichloroethene	3.202	96	41691	50.64	ng	95
21) Chloroform	3.415	83	81091	57.84	ng	99
24) 1,2-Dichloroethane	3.803	62	71215	59.02	ng	99
25) 1,1,1-Trichloroethane	3.533	97	70753	55.30	ng	97
27) Carbon Tetrachloride	3.638	117	65750	58.35	ng	99
28) Benzene	3.775	77	38787	52.18	ng	99
31) Trichloroethene	4.258	130	40373	50.27	ng	100
34) 1,4-Dioxane	4.504	88	26043	43.20	ng	95
38) 1,1,2-Trichloroethane	5.694	99	24617	54.82	ng	95
41) Toluene	5.328	92	86184	50.48	ng	100
46) 1,2-Dibromoethane (EDB)	6.086	107	40131	58.53	ng	98
47) Tetrachloroethene	5.771	131	33604	52.16	ng	98
48) 1,1,1,2-Tetrachloroethane	6.557	131	38155	57.56	ng	99
49) Chlorobenzene	6.480	112	96388	49.85	ng	100
50) Ethylbenzene	6.566	106	46362	47.60	ng	98
51) p & m-Xylene	6.671	106	54390	45.61	ng	98
56) o-Xylene	6.952	106	53477	47.18	ng	98
57) 1,2,3-Trichloropropane	7.477	75	60989	53.96	ng	100
58) Isopropylbenzene	7.222	105	146273	47.48	ng	100
65) 1,3,5-Trimethylbenzene	7.652	120	55146	50.05	ng	99
68) 1,2,4-Trimethylbenzene	7.907	120	53215	51.28	ng	95
70) 1,3-Dichlorobenzene	8.085	146	65208	52.14	ng	100
72) 1,4-Dichlorobenzene	8.155	146	65717	48.91	ng	100
73) 1,2-Dichlorobenzene	8.387	146	68691	50.92	ng	99
79) 1,2,4-Trichlorobenzene	9.422	180	44476	46.89	ng	99
80) Naphthalene	9.584	128	134403	46.86	ng	99
82) 1,2,3-Trichlorobenzene	9.724	180	46732	45.51	ng	95
84) 2-Methylnaphthalene	10.269	142	65578	41.88	ng	99

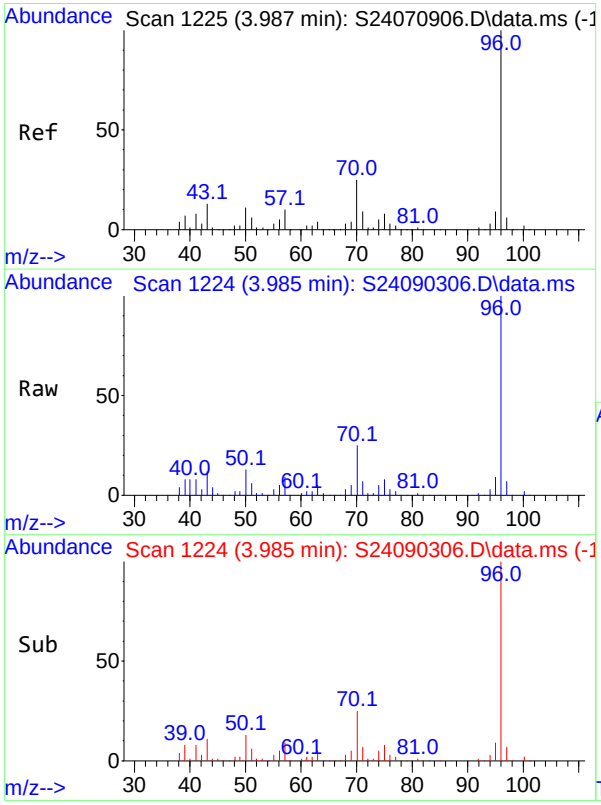
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090306.D
Acq On : 03 Sep 2024 03:39 pm
Operator : KAI
Sample : B24I002-ICV1
Misc : LCSD
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 04 10:58:50 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

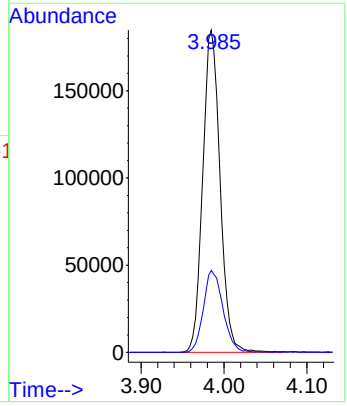


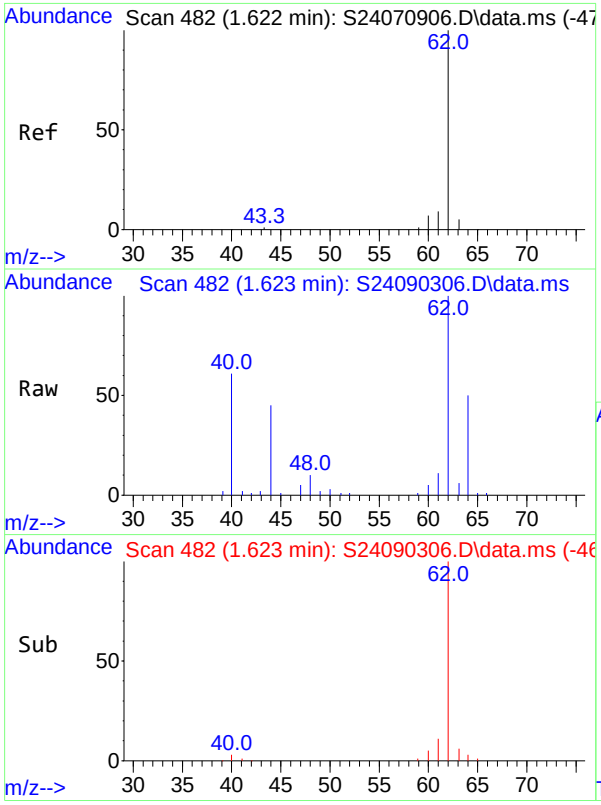


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 96 Resp: 269965

Ion	Ratio	Lower	Upper
96	100		
70	28.7	0.0	84.6

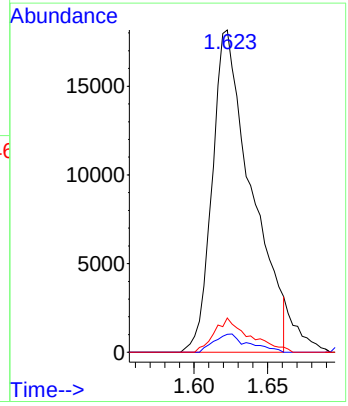


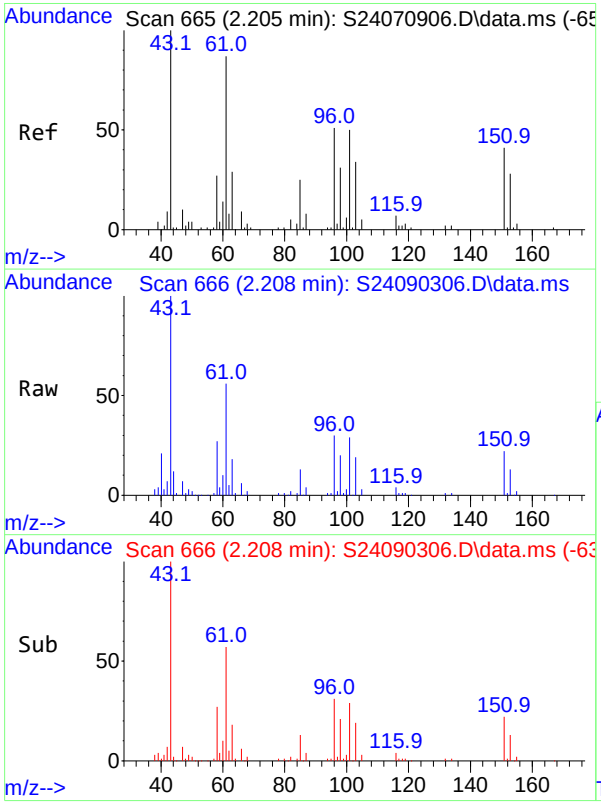


#4
Vinyl Chloride
Concen: 48.24 ng
RT: 1.623 min Scan# 482
Delta R.T. 0.001 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 62 Resp: 33746

Ion	Ratio	Lower	Upper
62	100		
63	5.1	3.9	5.9
61	9.5	6.9	10.3

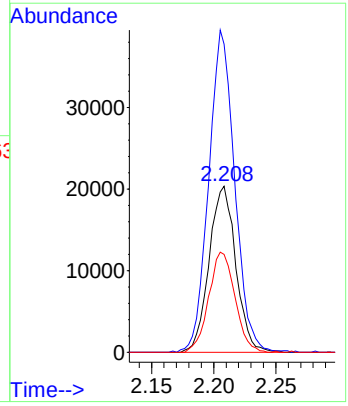


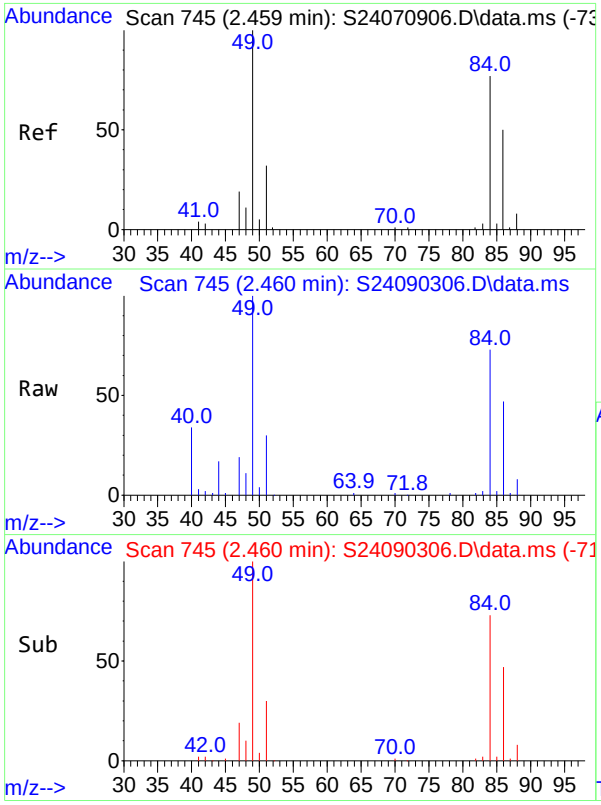


#9
1,1-Dichloroethene
Concen: 48.88 ng
RT: 2.208 min Scan# 666
Delta R.T. 0.004 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 96 Resp: 30532

Ion	Ratio	Lower	Upper
96	100		
61	188.3	141.5	212.3
63	59.2	46.5	69.7

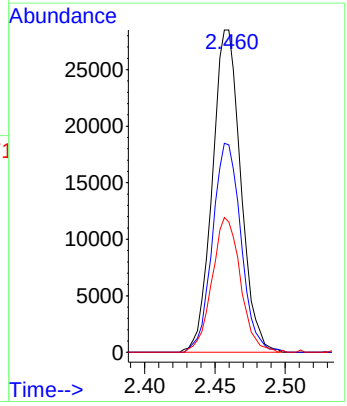


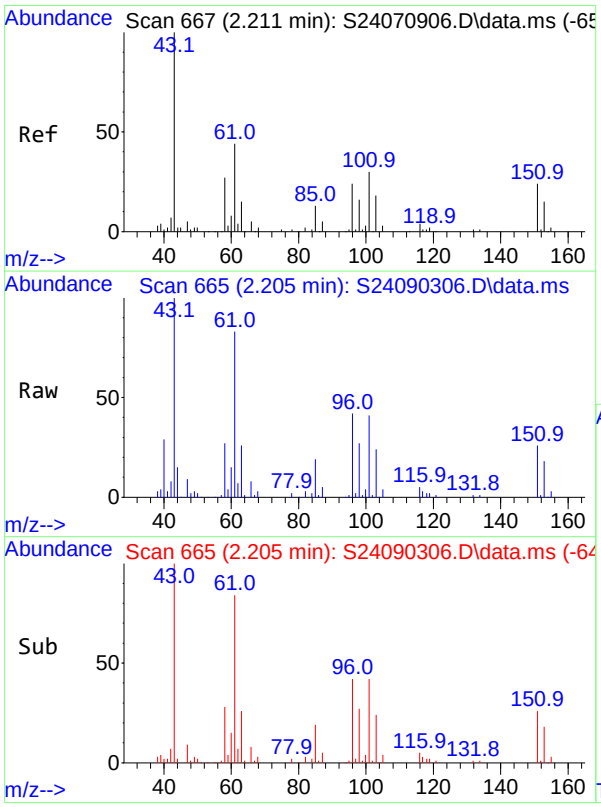


#10
Methylene Chloride
Concen: 53.66 ng
RT: 2.460 min Scan# 745
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 84 Resp: 40077

Ion	Ratio	Lower	Upper
84	100		
86	65.2	50.1	75.1
51	41.7	32.3	48.5

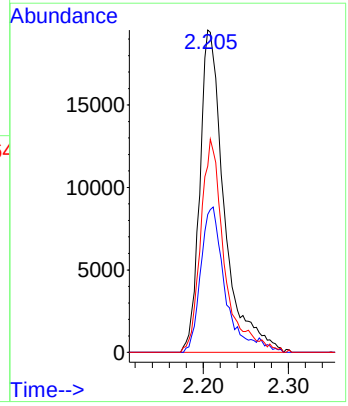


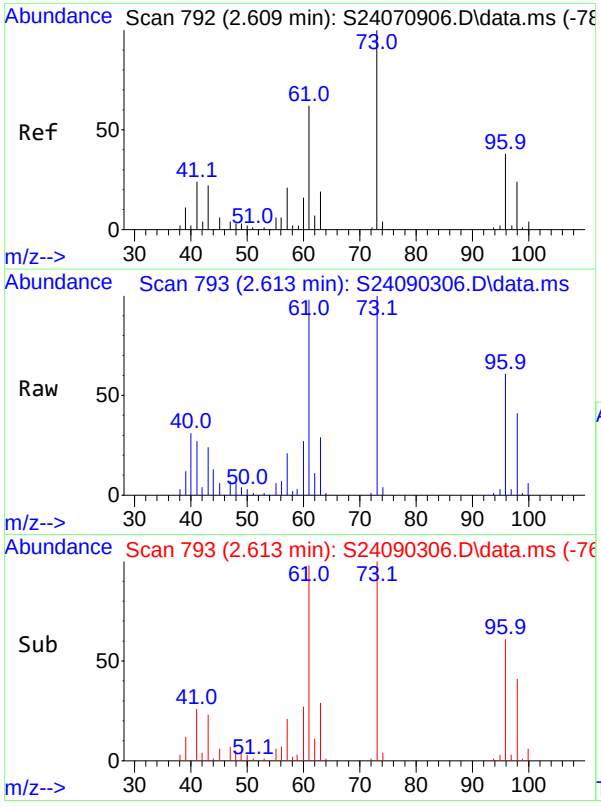


#11
1,1,2-Trichlorotrifluoroethane (Fr.113)
Concen: 54.07 ng
RT: 2.205 min Scan# 665
Delta R.T. -0.006 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:101 Resp: 39205

Ion	Ratio	Lower	Upper
101	100		
153	45.6	39.0	58.4
103	63.9	51.3	76.9

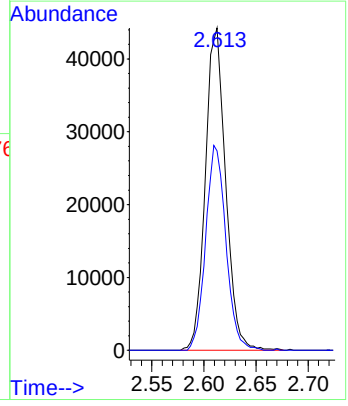


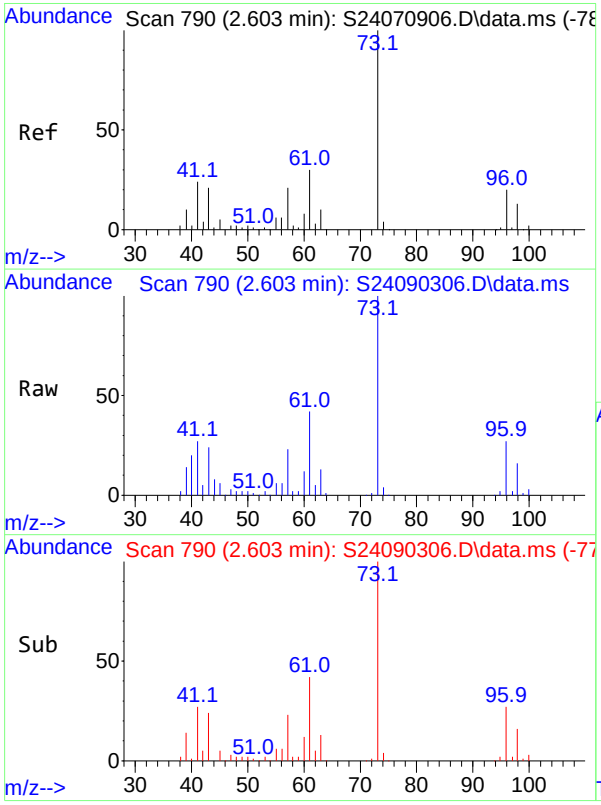


#14
trans-1,2-Dichloroethene
Concen: 55.17 ng
RT: 2.613 min Scan# 793
Delta R.T. 0.004 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 61 Resp: 60007

Ion	Ratio	Lower	Upper
61	100		
96	63.3	52.4	78.6

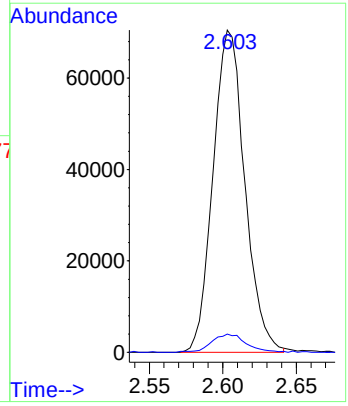


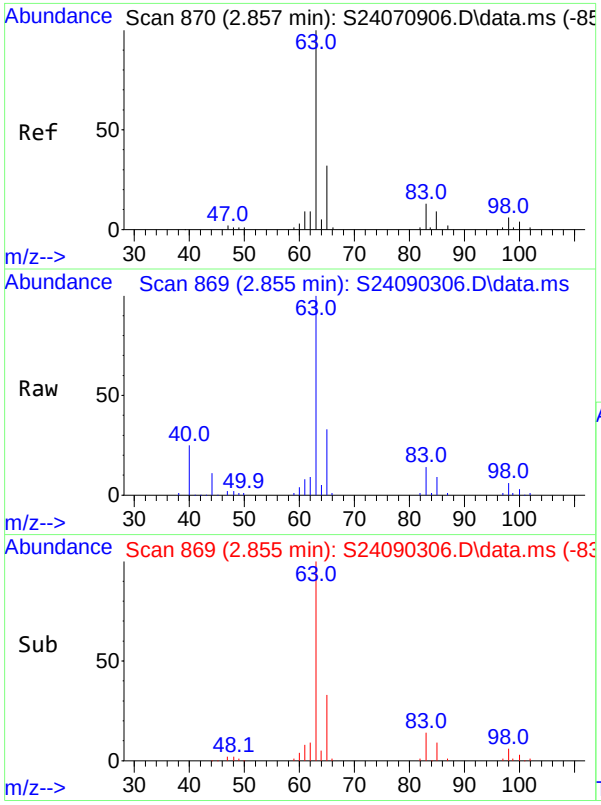


#15
Methyl-t-butyl ether
Concen: 48.62 ng
RT: 2.603 min Scan# 790
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 73 Resp: 106079

Ion	Ratio	Lower	Upper
73	100		
45	6.1	4.3	6.5

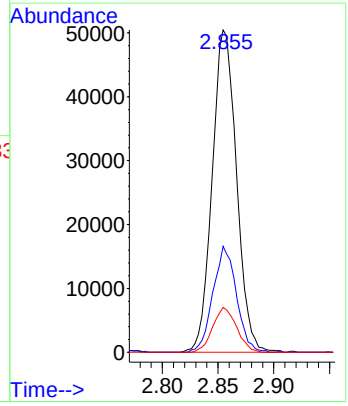


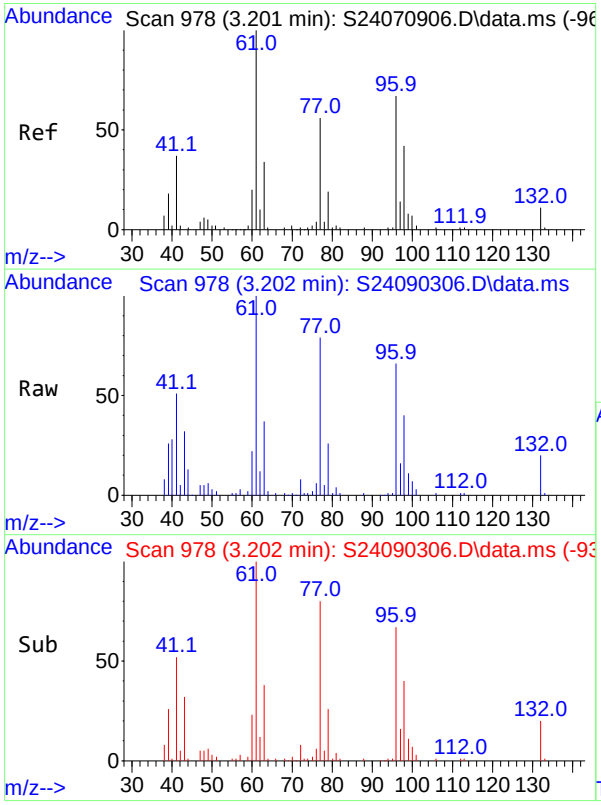


#16
1,1-Dichloroethane
Concen: 56.79 ng
RT: 2.855 min Scan# 869
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 63 Resp: 76621

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.8	38.6
83	13.7	10.7	16.1

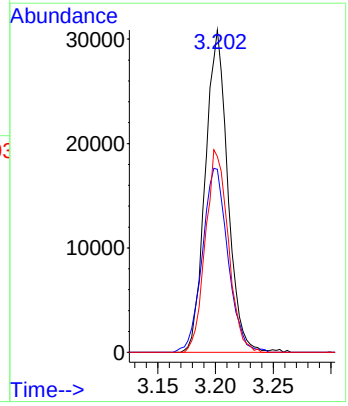


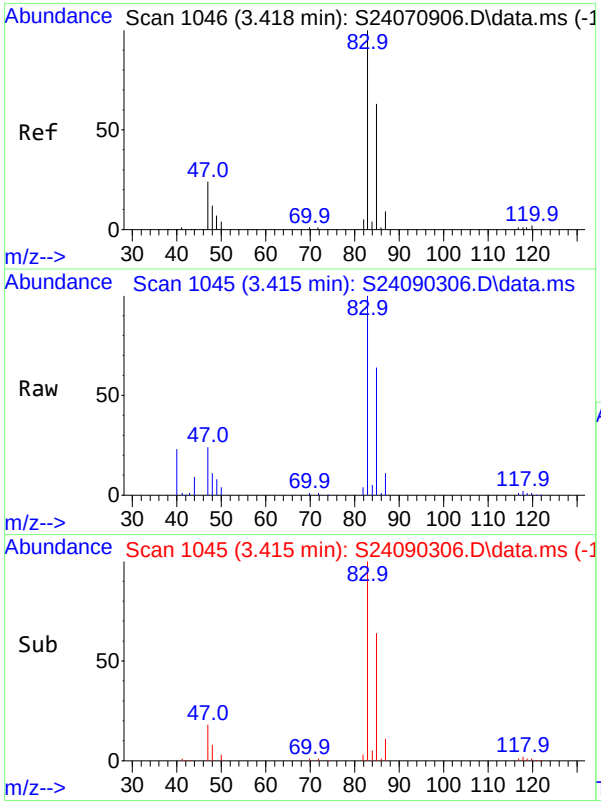


#18
cis-1,2-Dichloroethene
Concen: 50.64 ng
RT: 3.202 min Scan# 978
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 96 Resp: 41691

Ion	Ratio	Lower	Upper
96	100		
63	65.2	47.2	70.8
98	64.1	52.6	79.0

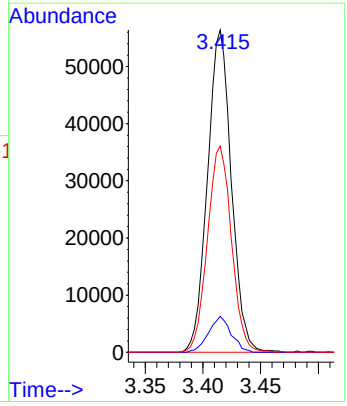


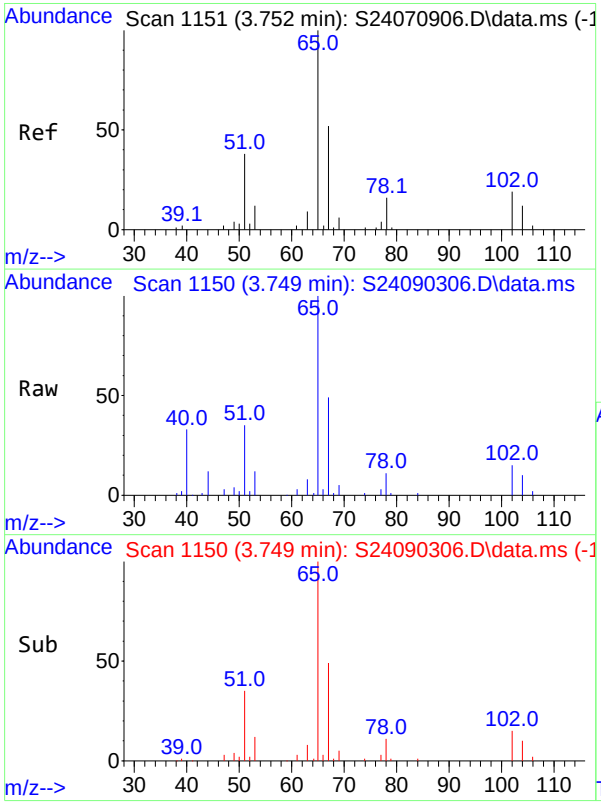


#21
Chloroform
Concen: 57.84 ng
RT: 3.415 min Scan# 1045
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 83 Resp: 81091

Ion	Ratio	Lower	Upper
83	100		
87	10.6	8.2	12.2
85	64.4	51.9	77.9

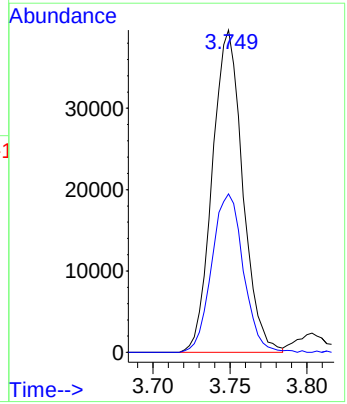


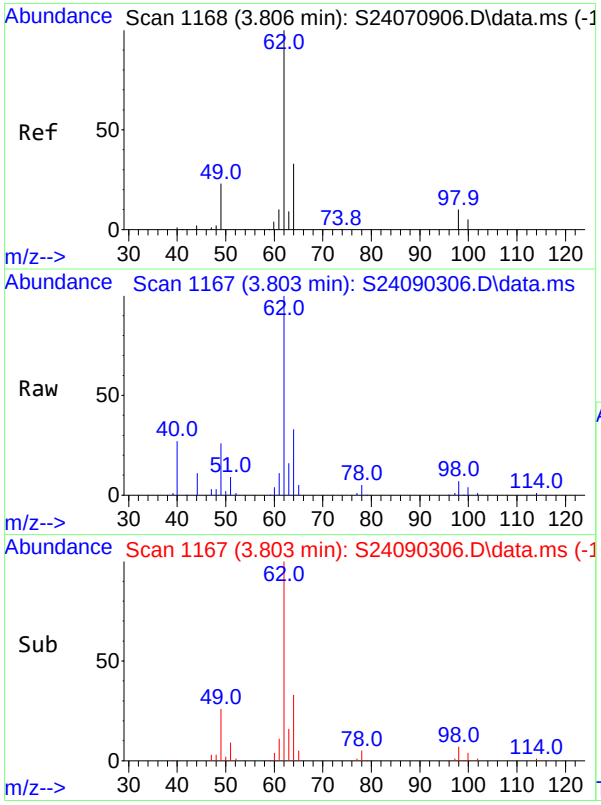


#23
1,2-DCA-d4
Concen: 54.93 ng
RT: 3.749 min Scan# 1150
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 65 Resp: 54345

Ion	Ratio	Lower	Upper
65	100		
67	51.0	41.7	62.5

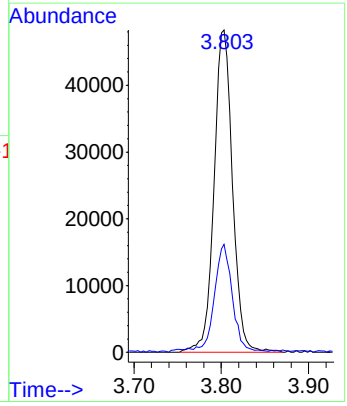


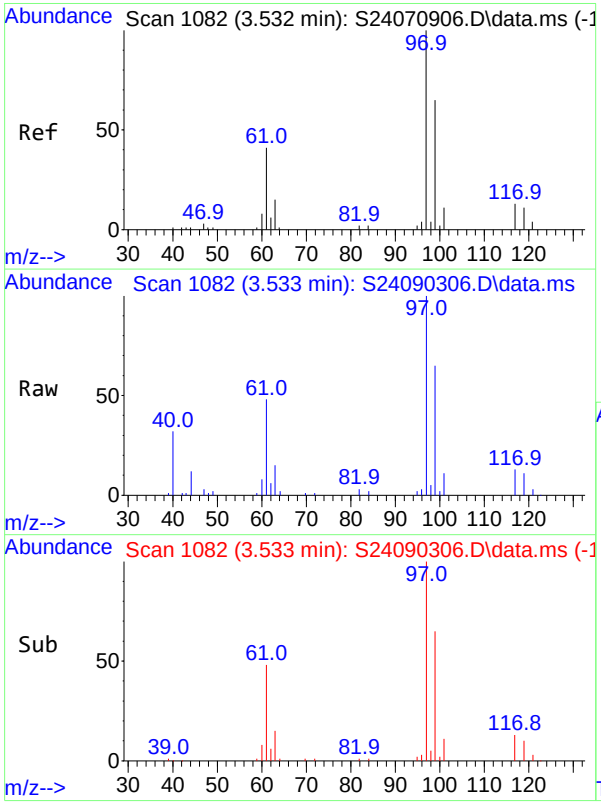


#24
1,2-Dichloroethane
Concen: 59.02 ng
RT: 3.803 min Scan# 1167
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 62 Resp: 71215

Ion	Ratio	Lower	Upper
62	100		
64	34.6	27.0	40.6

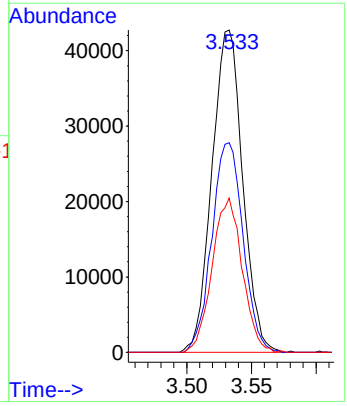


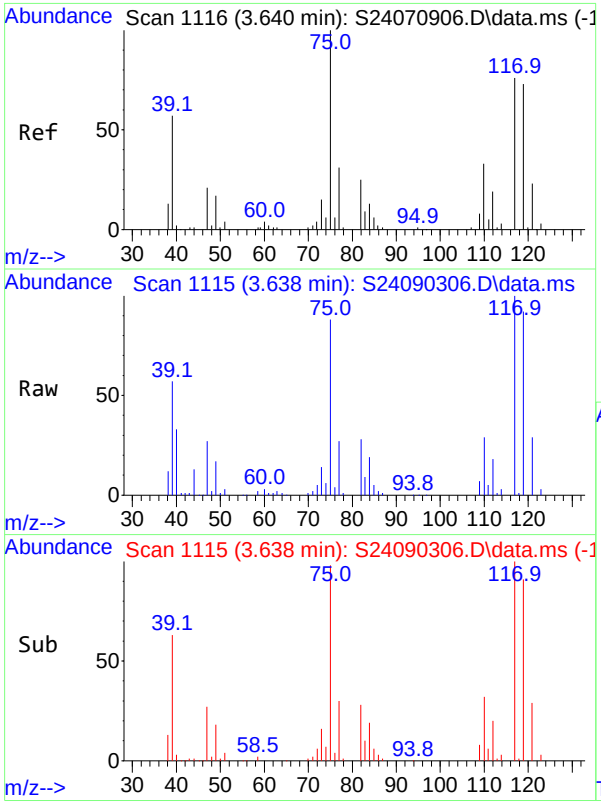


#25
1,1,1-Trichloroethane
Concen: 55.30 ng
RT: 3.533 min Scan# 1082
Delta R.T. 0.001 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 97 Resp: 70753

Ion	Ratio	Lower	Upper
97	100		
99	66.1	51.2	76.8
61	46.9	35.6	53.4

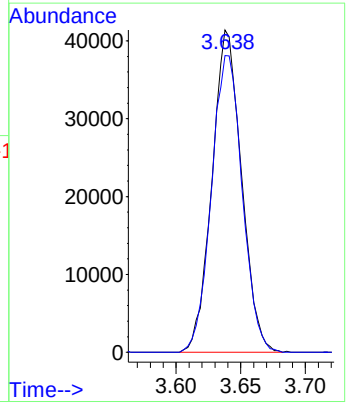


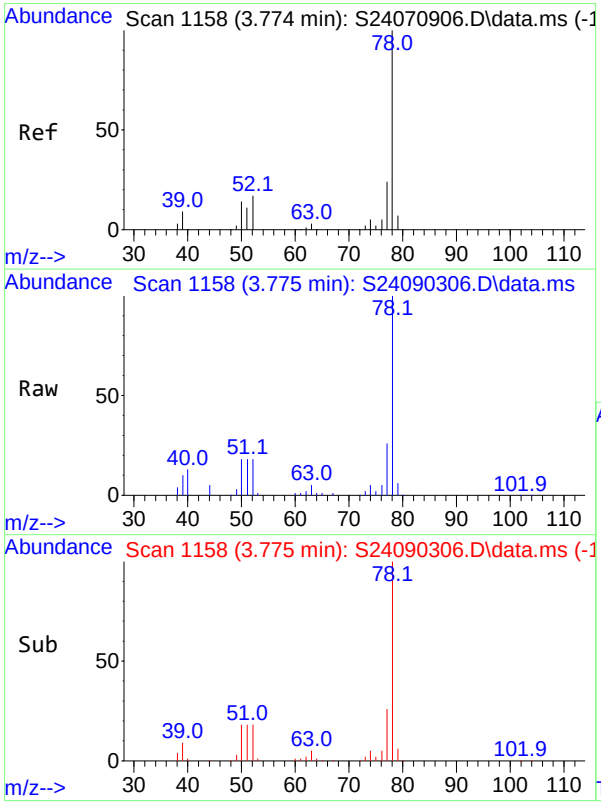


#27
Carbon Tetrachloride
Concen: 58.35 ng
RT: 3.638 min Scan# 1115
Delta R.T. -0.002 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:117 Resp: 65750

Ion	Ratio	Lower	Upper
117	100		
119	96.1	76.4	114.6

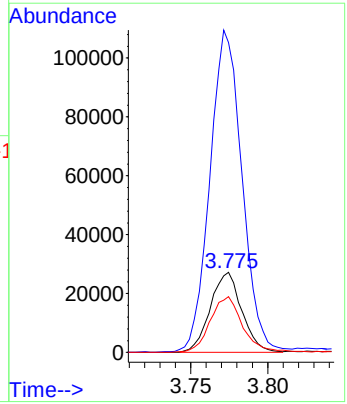


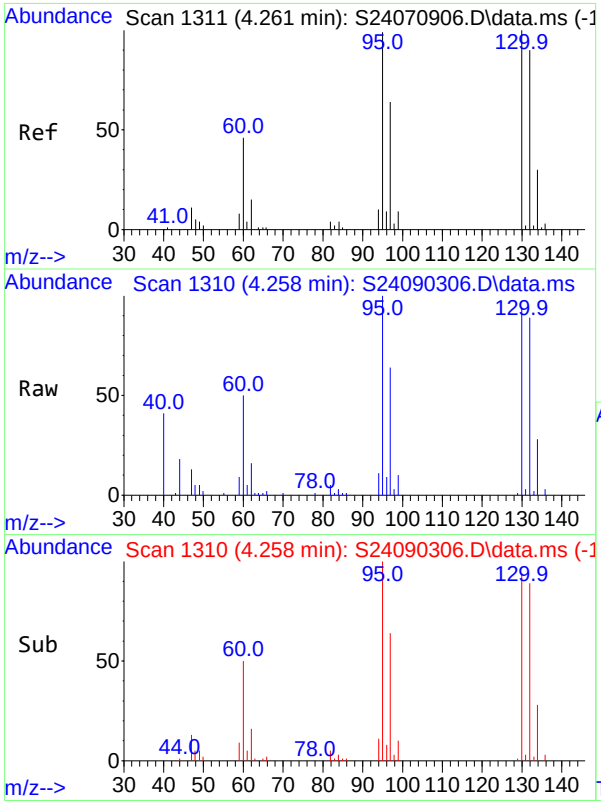


#28
Benzene
Concen: 52.18 ng
RT: 3.775 min Scan# 1158
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 77 Resp: 38787

Ion	Ratio	Lower	Upper
77	100		
78	408.4	326.8	490.2
50	71.3	51.8	77.8

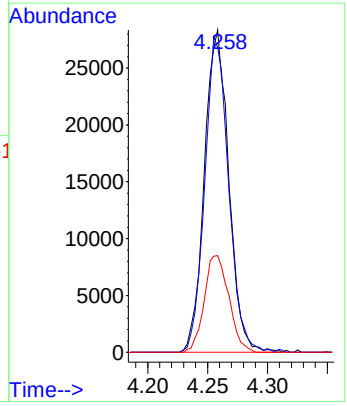


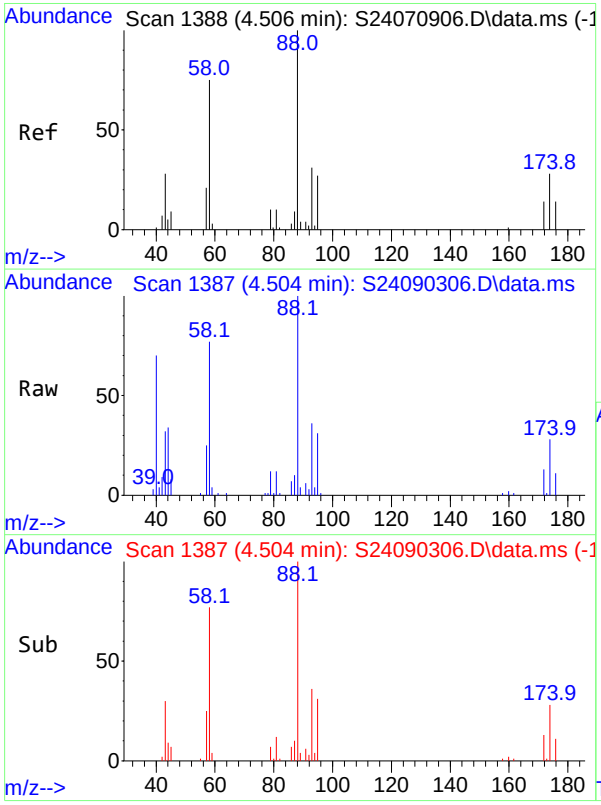


#31
Trichloroethene
Concen: 50.27 ng
RT: 4.258 min Scan# 1310
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:130 Resp: 40373

Ion	Ratio	Lower	Upper
130	100		
132	95.4	76.5	114.7
134	30.2	24.2	36.4

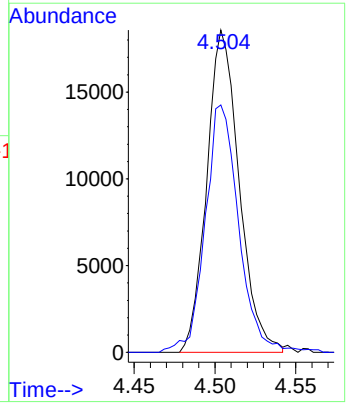


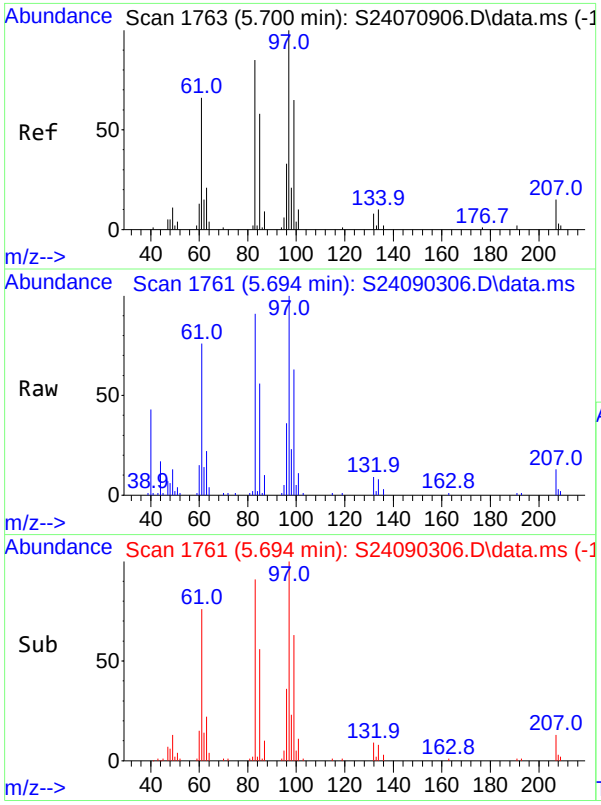


#34
1,4-Dioxane
Concen: 43.20 ng
RT: 4.504 min Scan# 1387
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 88 Resp: 26043

Ion	Ratio	Lower	Upper
88	100		
58	78.7	59.5	89.3

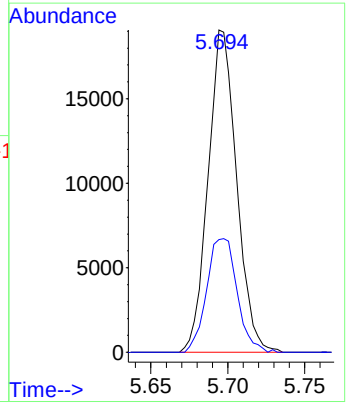


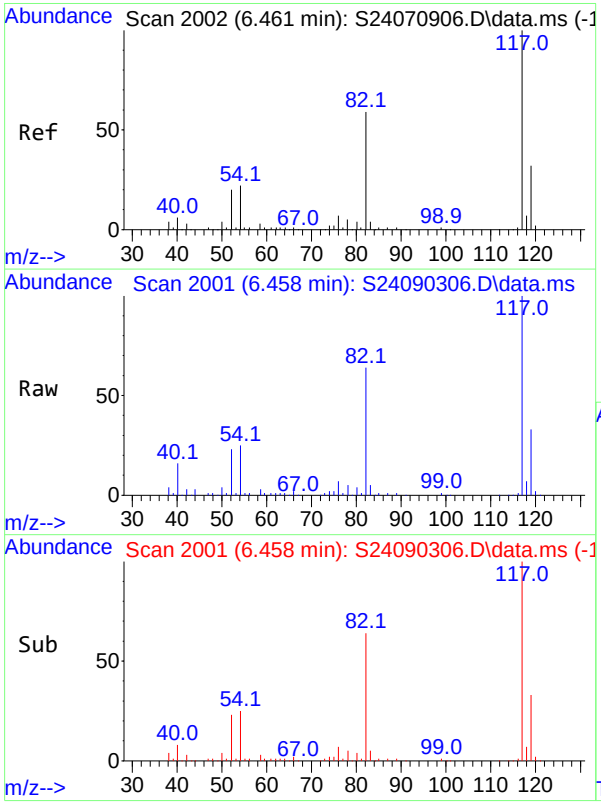


#38
1,1,2-Trichloroethane
Concen: 54.82 ng
RT: 5.694 min Scan# 1761
Delta R.T. -0.006 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 99 Resp: 24617

Ion	Ratio	Lower	Upper
99	100		
63	37.5	27.8	41.8

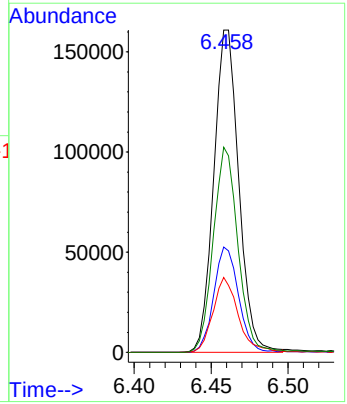


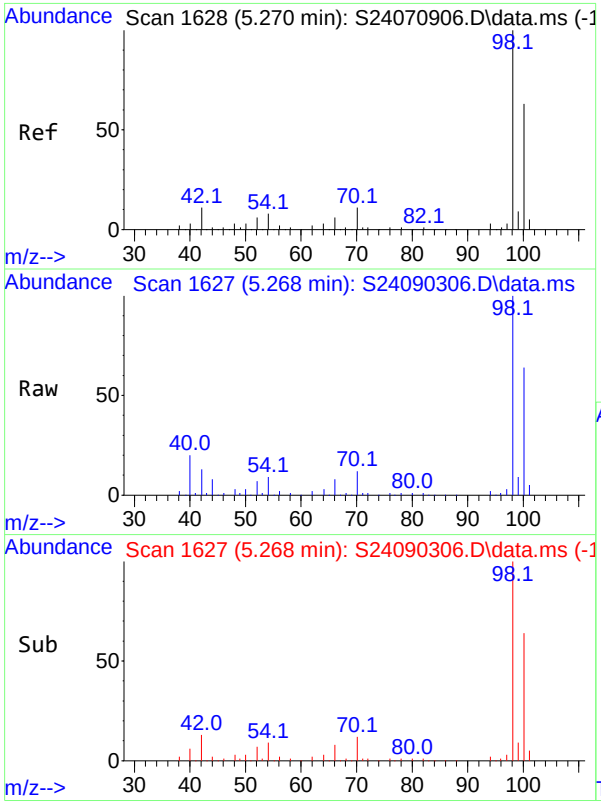


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:117 Resp: 182053

Ion	Ratio	Lower	Upper
117	100		
119	32.4	25.8	38.6
52	23.5	16.7	25.1
82	62.6	47.8	71.8

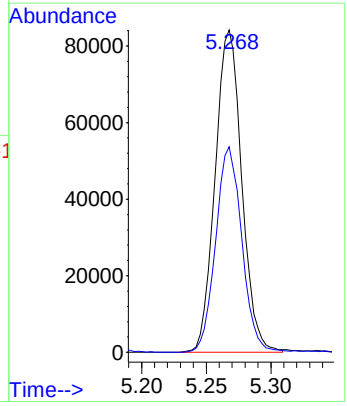


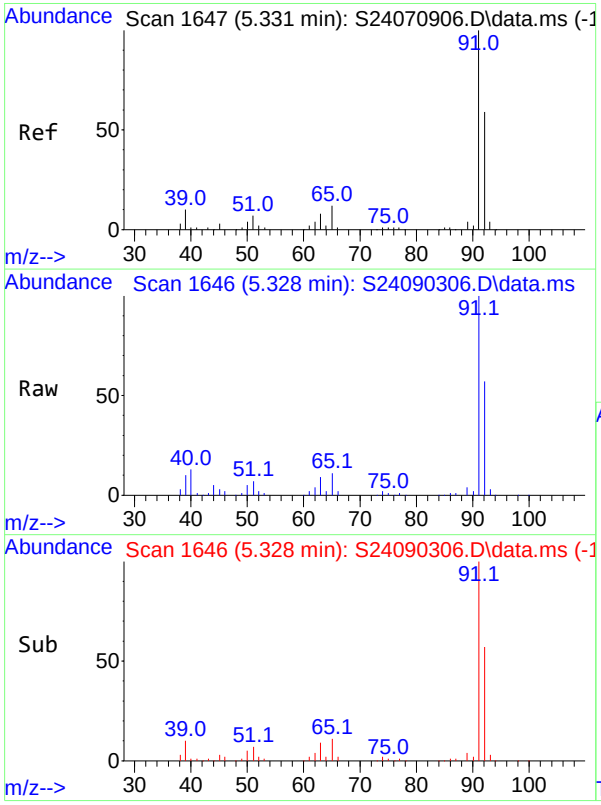


#40
Toluene-d8
Concen: 49.63 ng
RT: 5.268 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 98 Resp: 120732

Ion	Ratio	Lower	Upper
98	100		
100	62.7	51.1	76.7

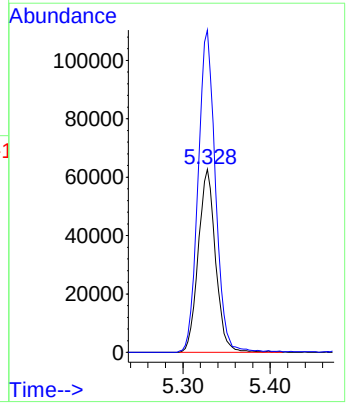


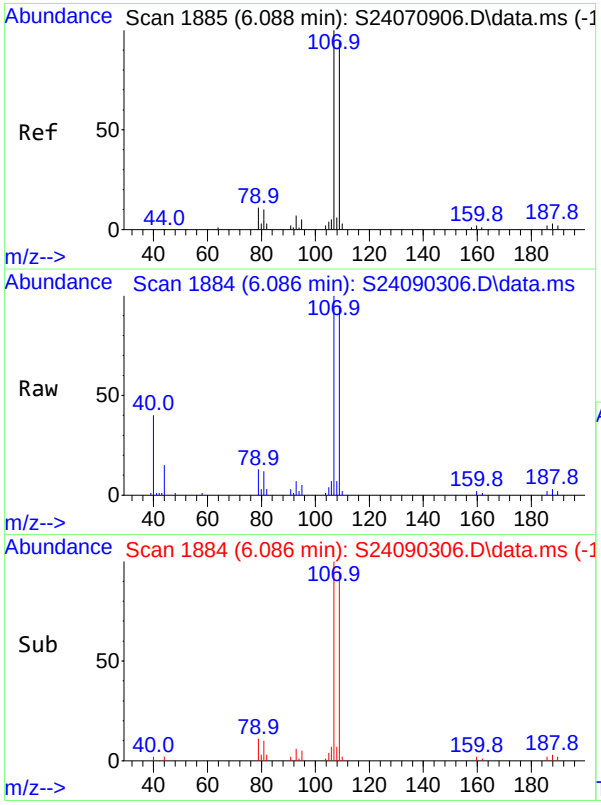


#41
Toluene
Concen: 50.48 ng
RT: 5.328 min Scan# 1646
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 92 Resp: 86184

Ion	Ratio	Lower	Upper
92	100		
91	177.1	141.3	211.9

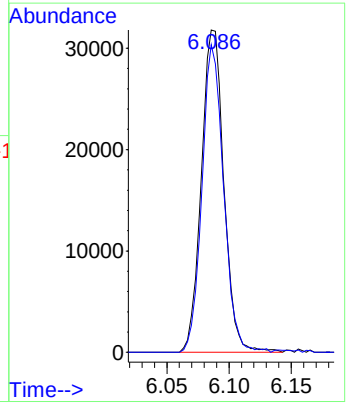


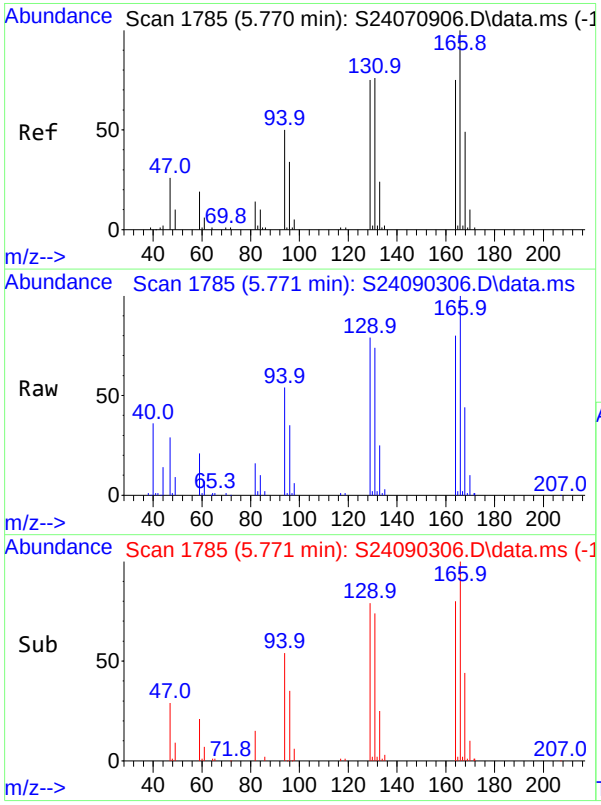


#46
1,2-Dibromoethane (EDB)
Concen: 58.53 ng
RT: 6.086 min Scan# 1884
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:107 Resp: 40131

Ion	Ratio	Lower	Upper
107	100		
109	91.4	74.3	111.5

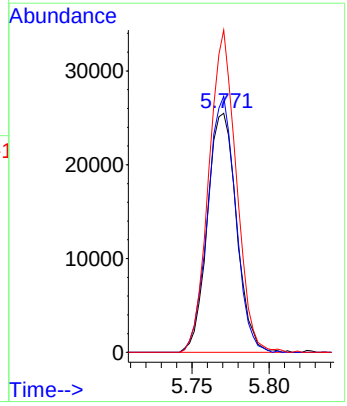


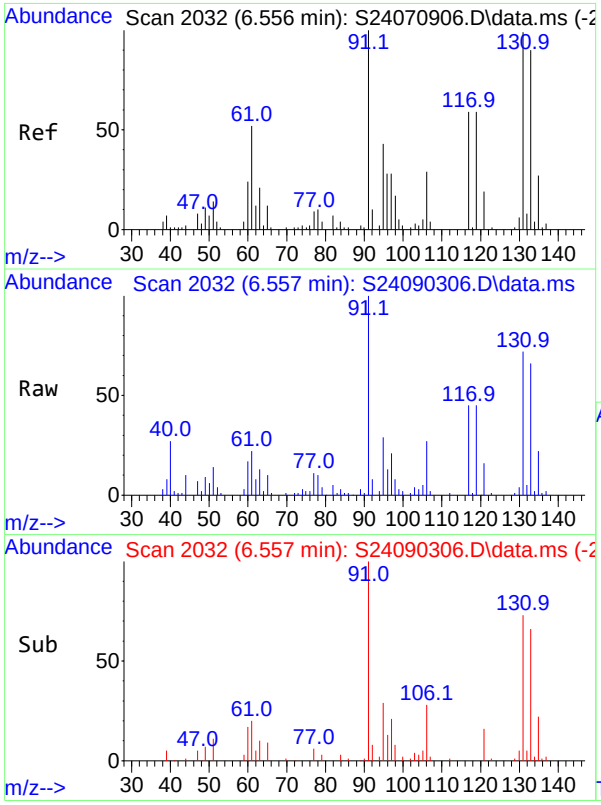


#47
Tetrachloroethene
Concen: 52.16 ng
RT: 5.771 min Scan# 1785
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:131 Resp: 33604

Ion	Ratio	Lower	Upper
131	100		
129	102.2	82.9	124.3
166	126.5	103.7	155.5

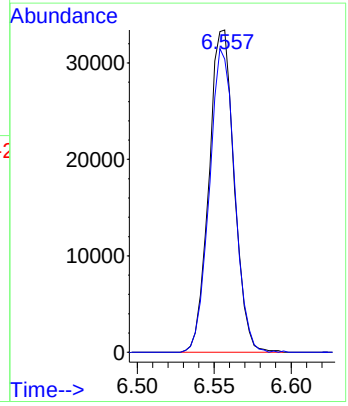


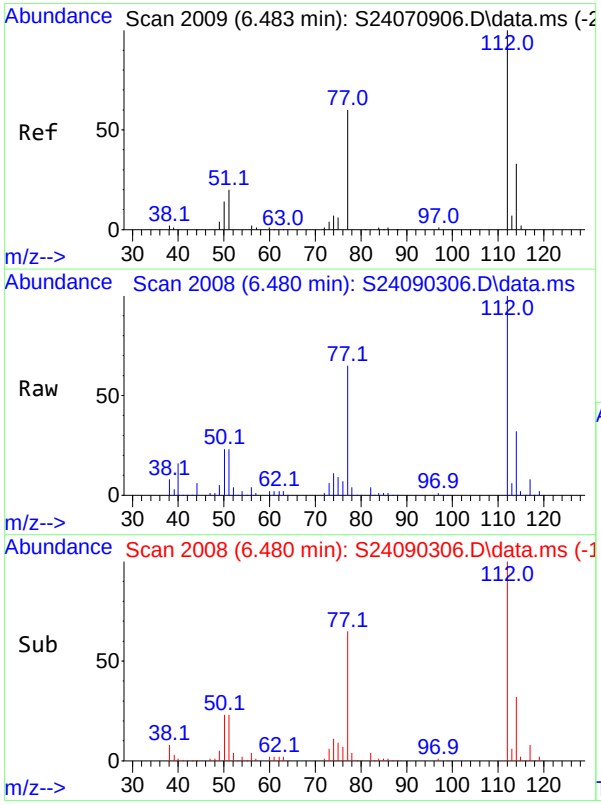


#48
1,1,1,2-Tetrachloroethane
Concen: 57.56 ng
RT: 6.557 min Scan# 2032
Delta R.T. 0.001 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:131 Resp: 38155

Ion	Ratio	Lower	Upper
131	100		
133	94.1	75.8	113.8

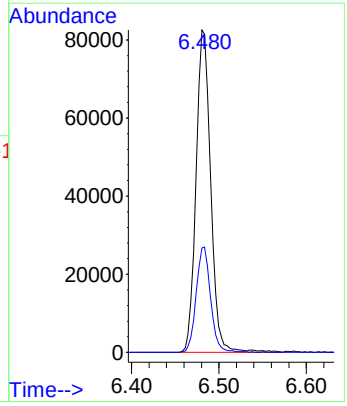


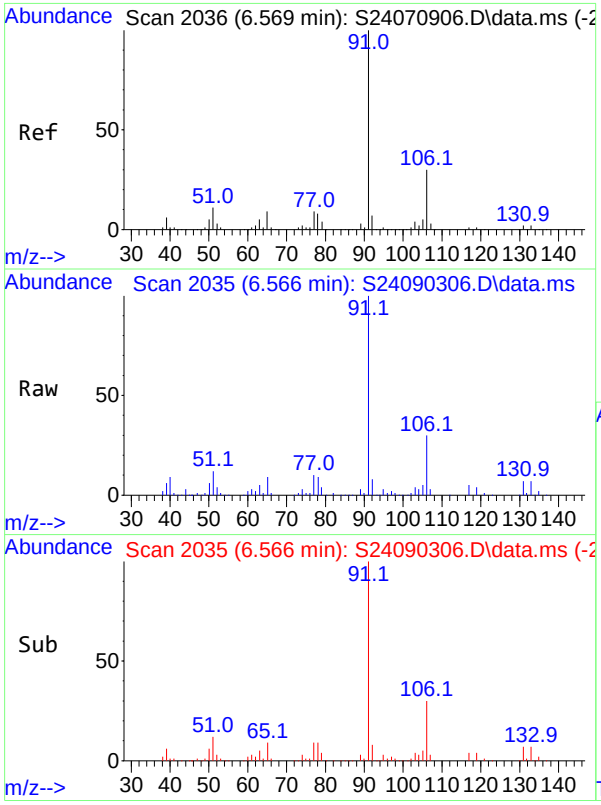


#49
Chlorobenzene
Concen: 49.85 ng
RT: 6.480 min Scan# 2008
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:112 Resp: 96388

Ion	Ratio	Lower	Upper
112	100		
114	32.1	25.8	38.8

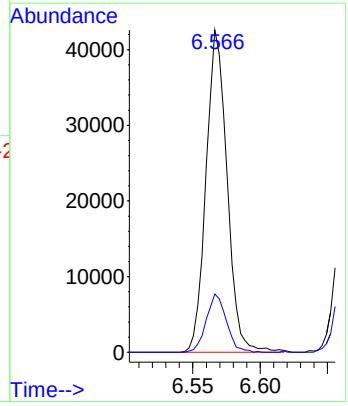


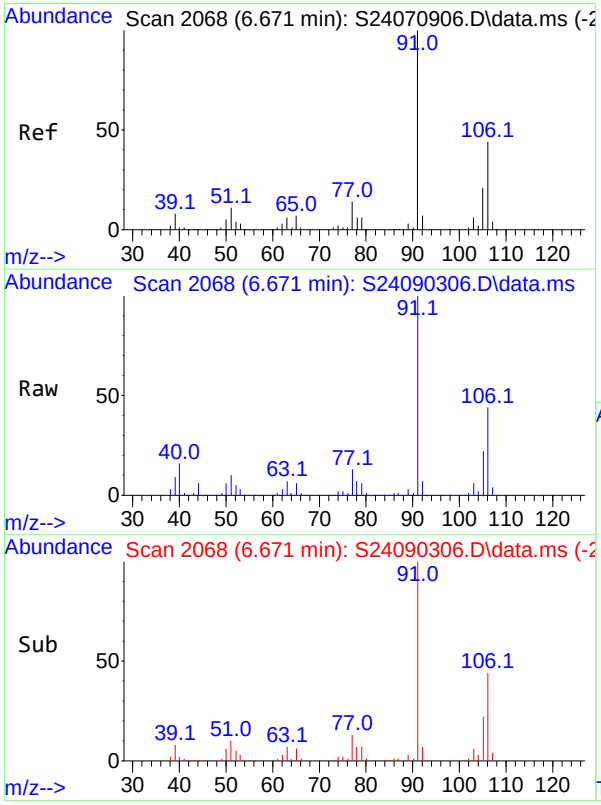


#50
Ethylbenzene
Concen: 47.60 ng
RT: 6.566 min Scan# 2035
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:106 Resp: 46362

Ion	Ratio	Lower	Upper
106	100		
105	17.3	13.3	19.9

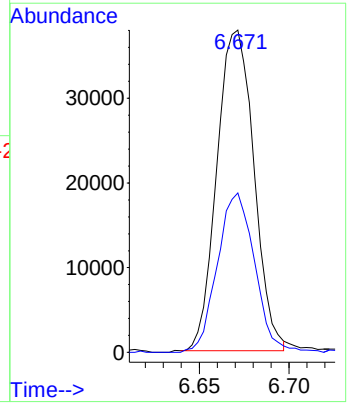


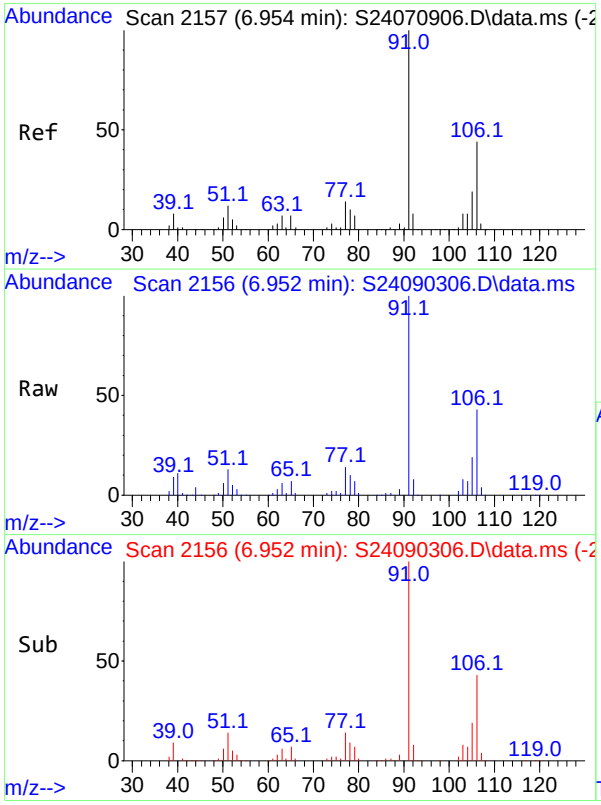


#51
p & m-Xylene
Concen: 45.61 ng
RT: 6.671 min Scan# 2068
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:106 Resp: 54390

Ion	Ratio	Lower	Upper
106	100		
105	49.3	38.2	57.4

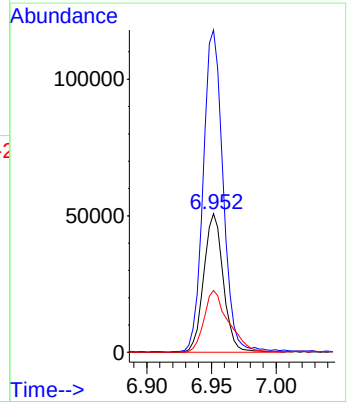


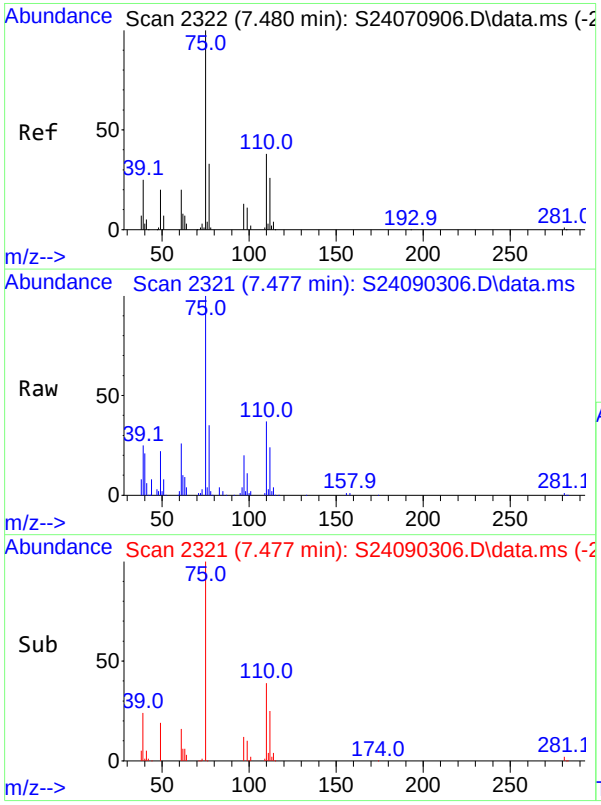


#56
o-Xylene
Concen: 47.18 ng
RT: 6.952 min Scan# 2156
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:106 Resp: 53477

Ion	Ratio	Lower	Upper
106	100		
91	238.6	188.8	283.2
105	56.6	44.0	66.0

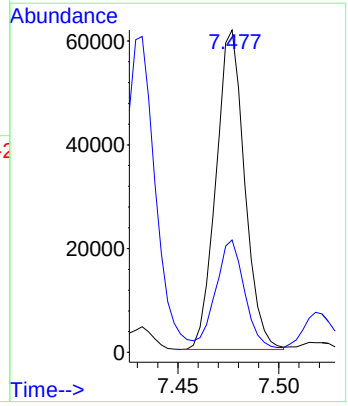


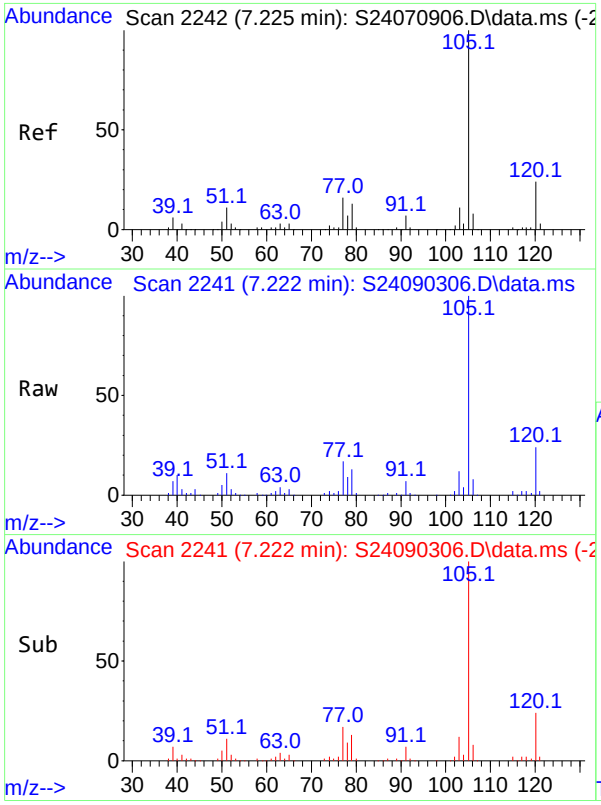


#57
1,2,3-Trichloropropane
Concen: 53.96 ng
RT: 7.477 min Scan# 2321
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion: 75 Resp: 60989

Ion	Ratio	Lower	Upper
75	100		
77	33.1	26.7	40.1

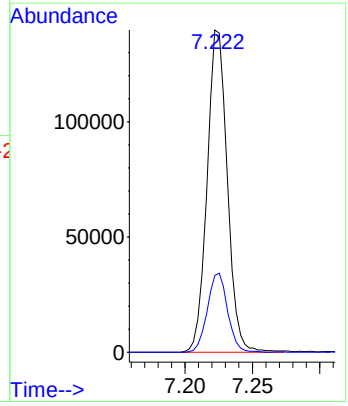


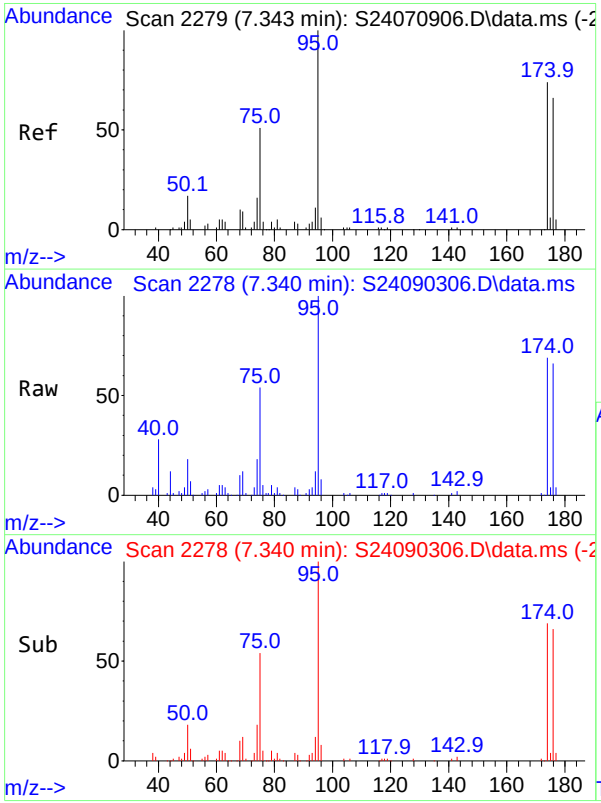


#58
Isopropylbenzene
Concen: 47.48 ng
RT: 7.222 min Scan# 2241
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:105 Resp: 146273

Ion	Ratio	Lower	Upper
105	100		
120	24.5	19.8	29.6

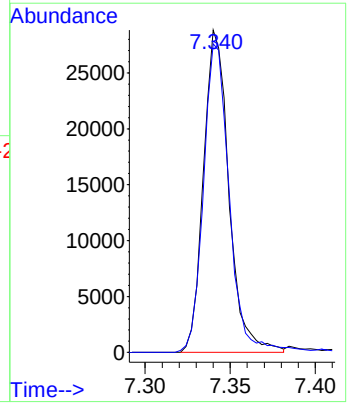


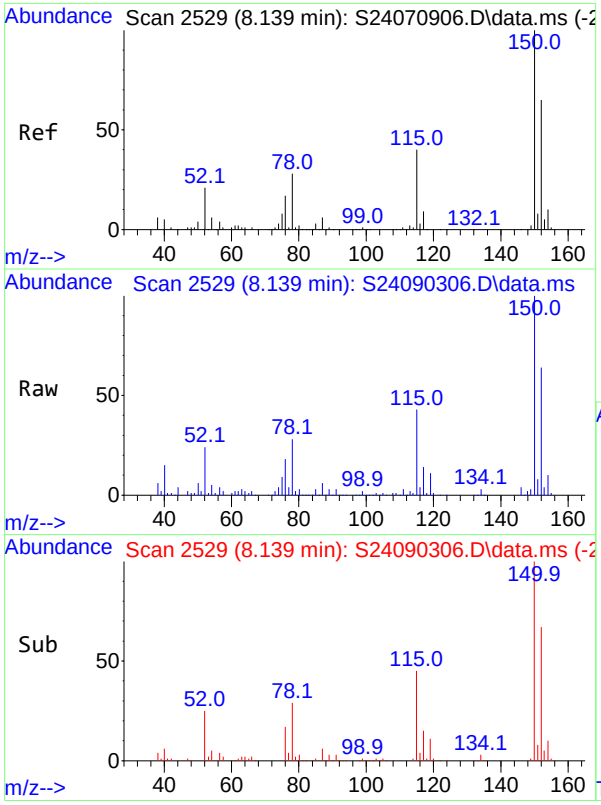


#59
Bromofluorobenzene
Concen: 40.18 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:174 Resp: 29983

Ion	Ratio	Lower	Upper
174	100		
176	96.4	75.0	112.6

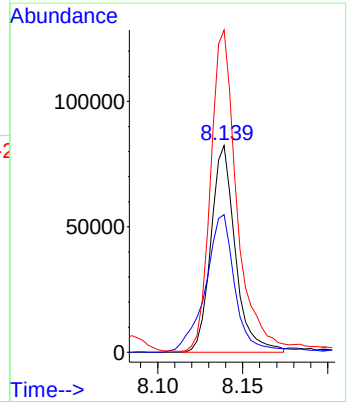


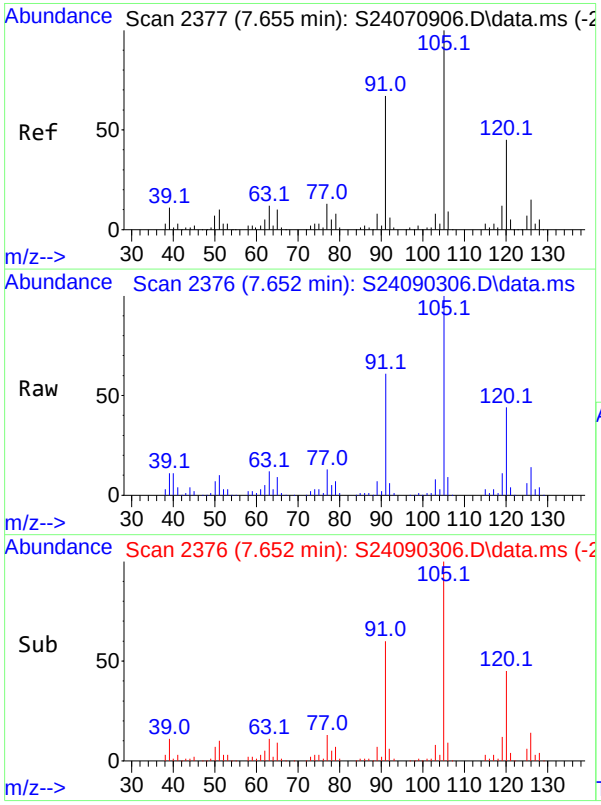


#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:152 Resp: 82496

Ion	Ratio	Lower	Upper
152	100		
115	80.5	60.5	90.7
150	166.7	129.6	194.4

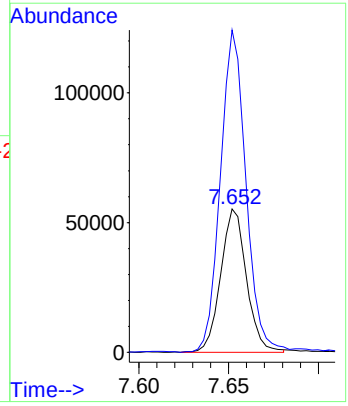


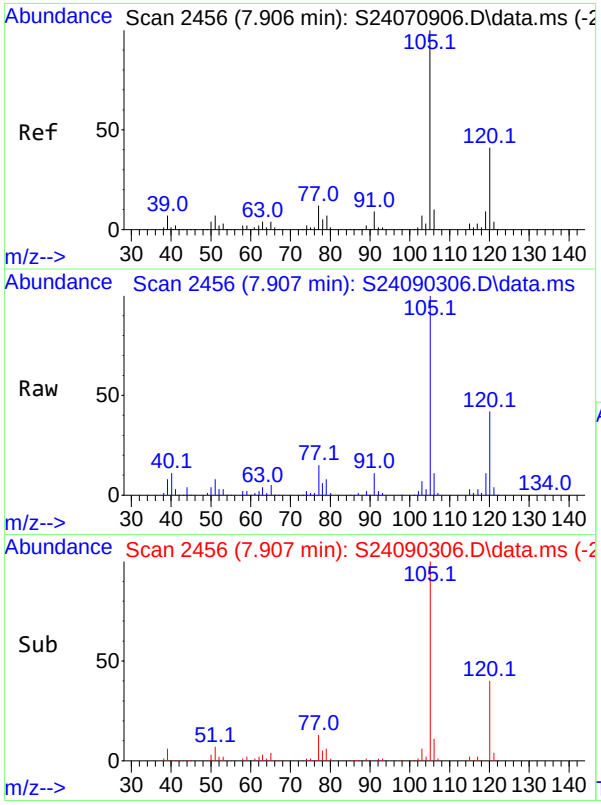


#65
1,3,5-Trimethylbenzene
Concen: 50.05 ng
RT: 7.652 min Scan# 2376
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:120 Resp: 55146

Ion	Ratio	Lower	Upper
120	100		
105	221.8	175.8	263.8

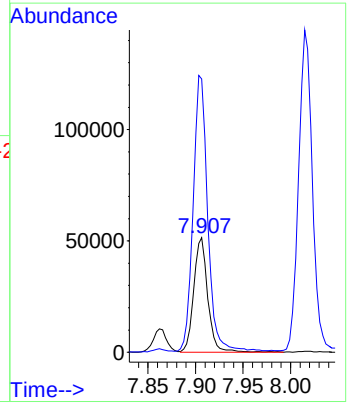


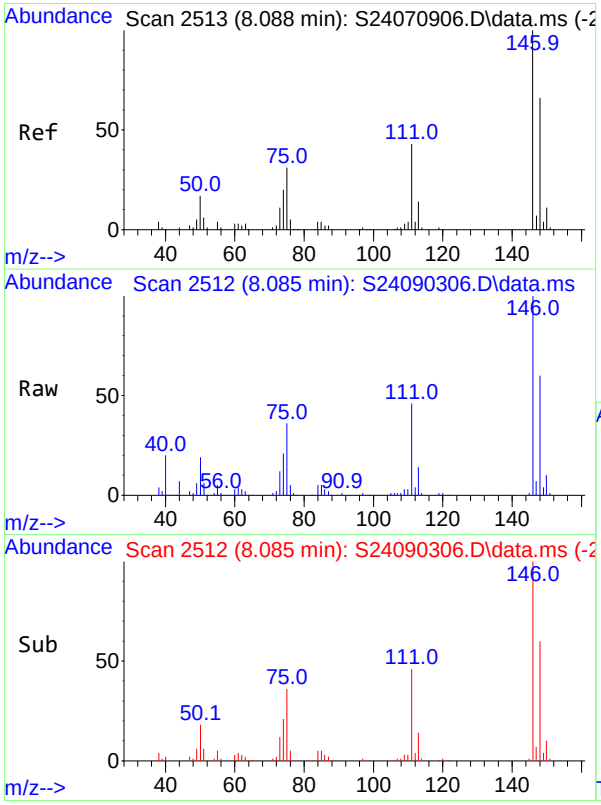


#68
1,2,4-Trimethylbenzene
Concen: 51.28 ng
RT: 7.907 min Scan# 2456
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:120 Resp: 53215

Ion	Ratio	Lower	Upper
120	100		
105	247.3	191.6	287.4

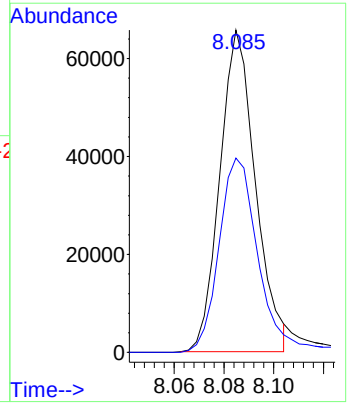


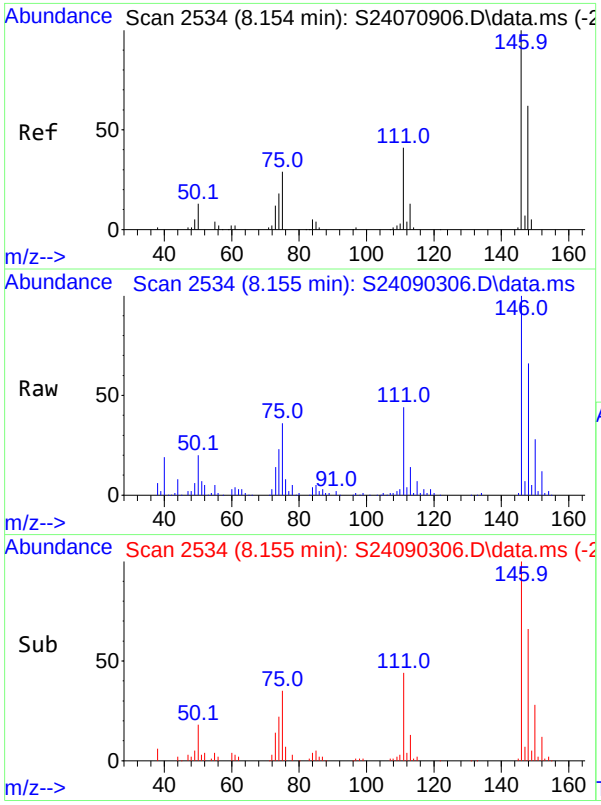


#70
1,3-Dichlorobenzene
Concen: 52.14 ng
RT: 8.085 min Scan# 2512
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:146 Resp: 65208

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.4	77.0

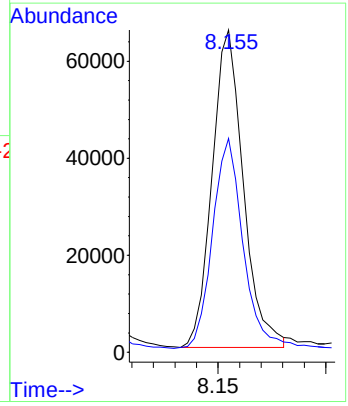


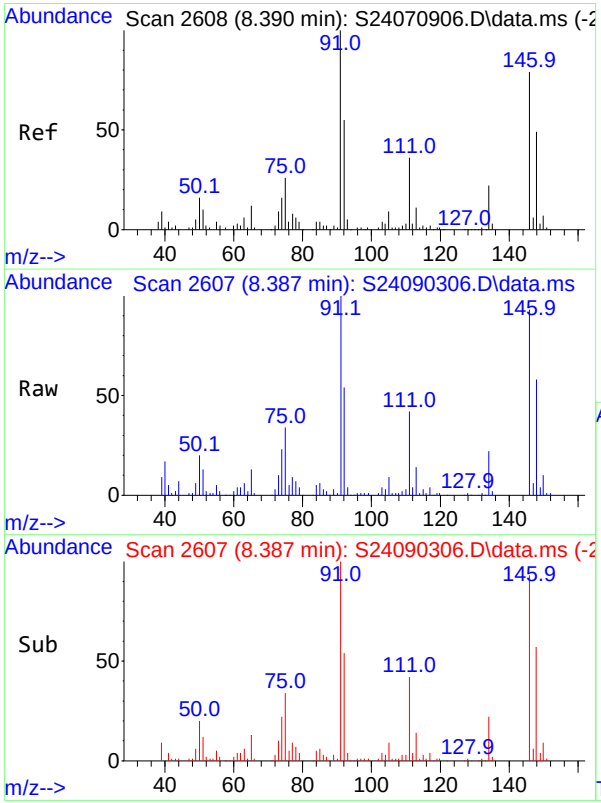


#72
1,4-Dichlorobenzene
Concen: 48.91 ng
RT: 8.155 min Scan# 2534
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:146 Resp: 65717

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8

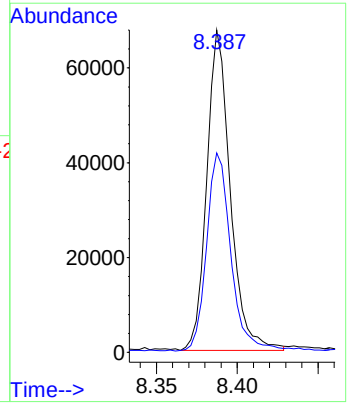


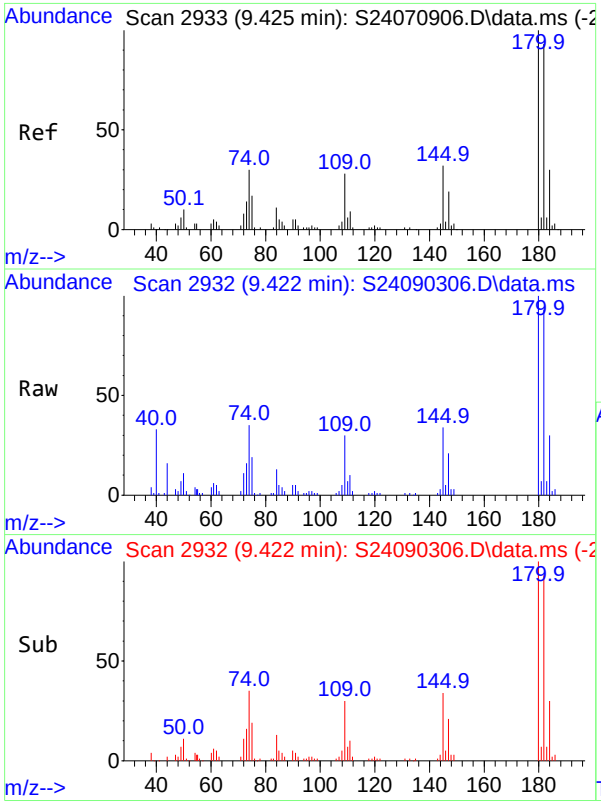


#73
1,2-Dichlorobenzene
Concen: 50.92 ng
RT: 8.387 min Scan# 2607
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:146 Resp: 68691

Ion	Ratio	Lower	Upper
146	100		
148	63.7	50.6	75.8

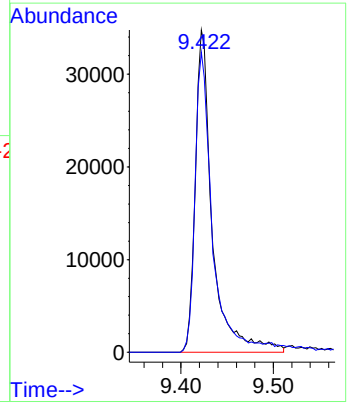


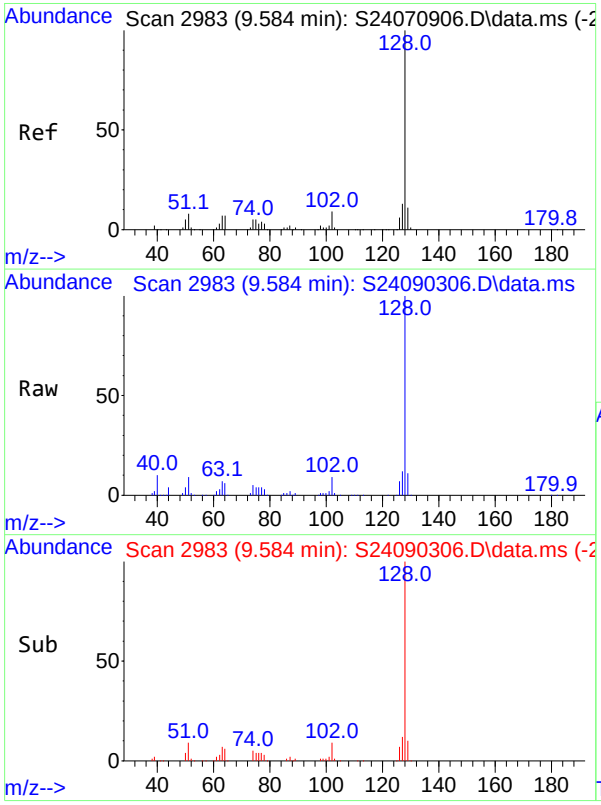


#79
1,2,4-Trichlorobenzene
Concen: 46.89 ng
RT: 9.422 min Scan# 2932
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:180 Resp: 44476

Ion	Ratio	Lower	Upper
180	100		
182	95.8	75.9	113.9

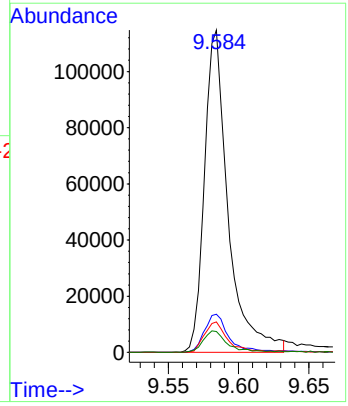


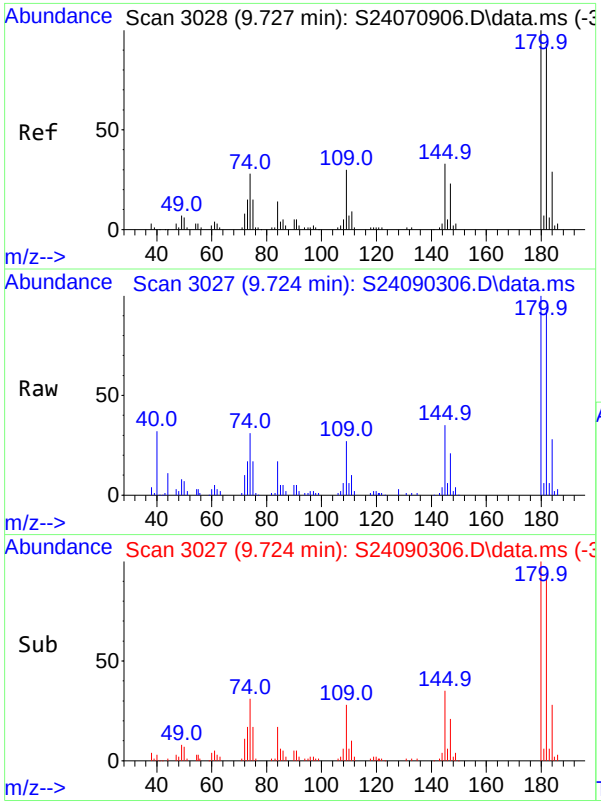


#80
Naphthalene
Concen: 46.86 ng
RT: 9.584 min Scan# 2983
Delta R.T. 0.000 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:128 Resp: 134403

Ion	Ratio	Lower	Upper
128	100		
127	12.2	10.1	15.1
102	9.6	7.4	11.0
64	6.9	5.5	8.3

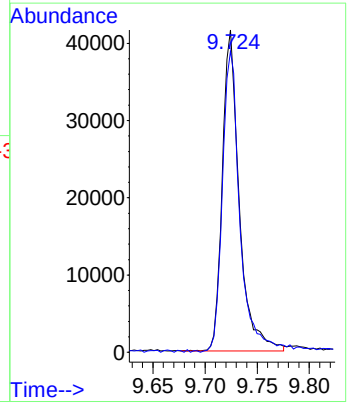


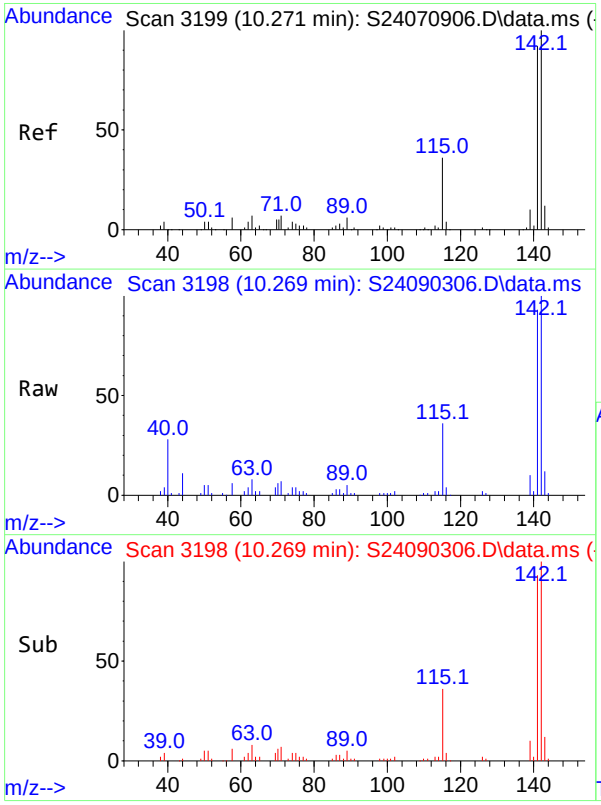


#82
1,2,3-Trichlorobenzene
Concen: 45.51 ng
RT: 9.724 min Scan# 3027
Delta R.T. -0.003 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:180 Resp: 46732

Ion	Ratio	Lower	Upper
180	100		
182	97.5	74.5	111.7

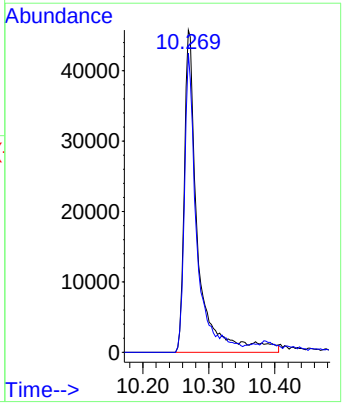




#84
2-Methylnaphthalene
Concen: 41.88 ng
RT: 10.269 min Scan# 3198
Delta R.T. -0.002 min
Lab File: S24090306.D
Acq: 03 Sep 2024 03:39 pm

Tgt Ion:142 Resp: 65578

Ion	Ratio	Lower	Upper
142	100		
141	90.6	72.1	108.1



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sequence Raw Data

Analysis: TO-17 (Passive)
Analyzed: 9/3/2024 8:39:00PM

Lab Number: B24I002-CCB1
QC Description: Lab Blank

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090315.D
Acq On : 03 Sep 2024 08:39 pm
Operator : KAI
Sample : B24I002-CCB1
Misc : LB
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 04 11:10:01 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

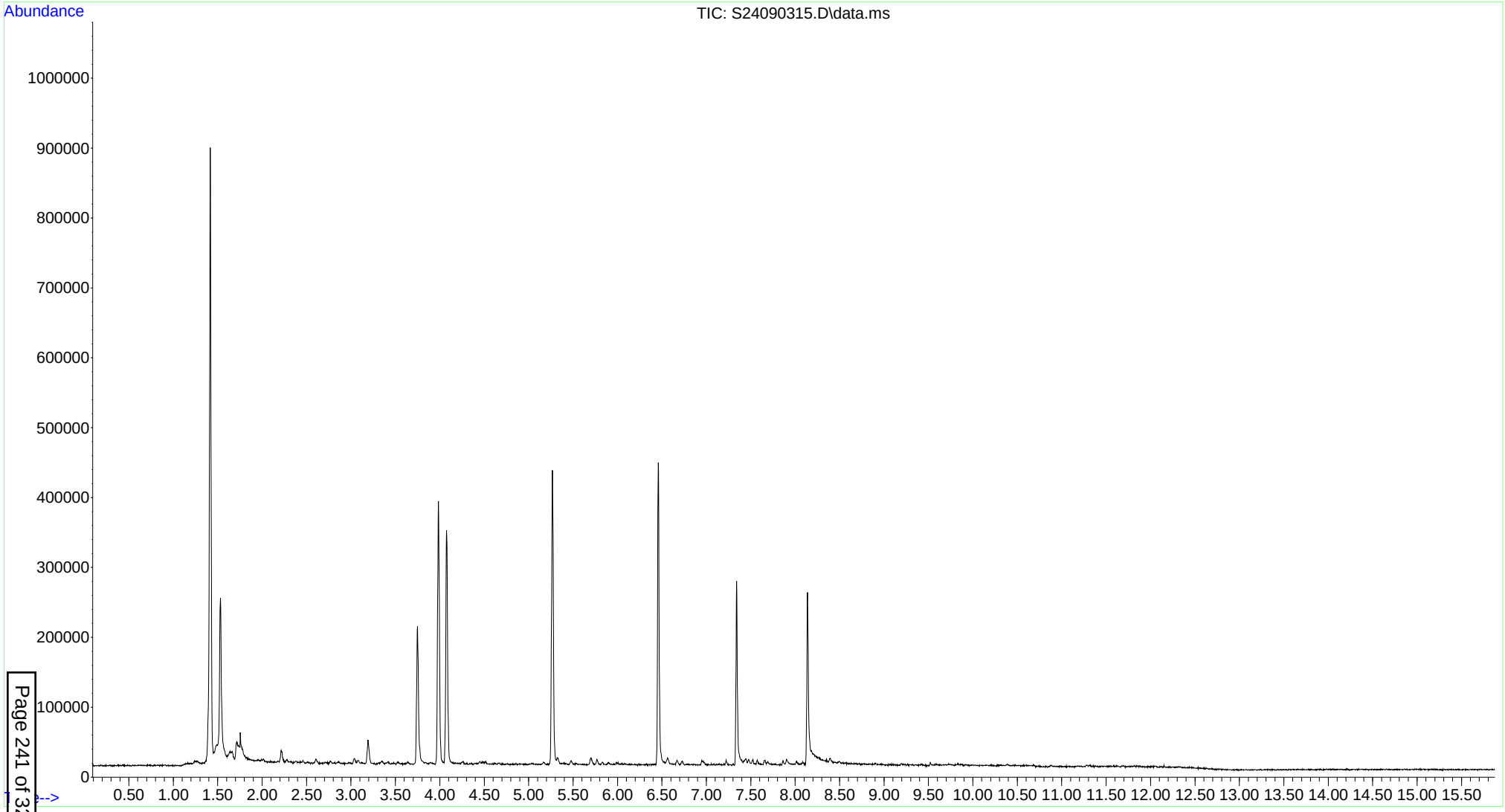
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.985	96	235846	100.00	ng	0.00
39) Chlorobenzene-d5	6.458	117	152969	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	54513	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	104558	120.98	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 120.98%			
40) Toluene-d8	5.268	98	215209	105.29	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 105.29%			
59) Bromofluorobenzene	7.340	174	42704	68.11	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 68.11%#			
Target Compounds						Qvalue

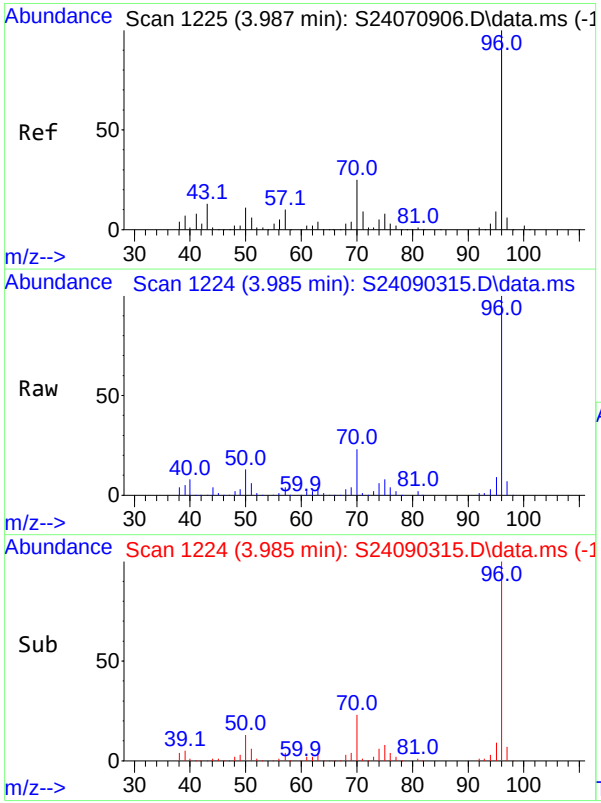
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090315.D
Acq On : 03 Sep 2024 08:39 pm
Operator : KAI
Sample : B24I002-CCB1
Misc : LB
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 04 11:10:01 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

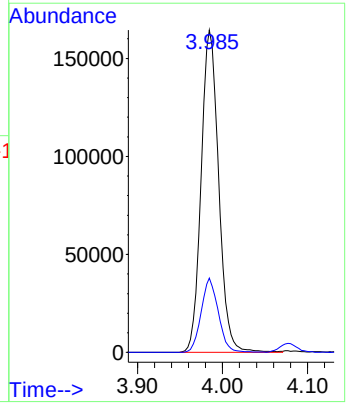


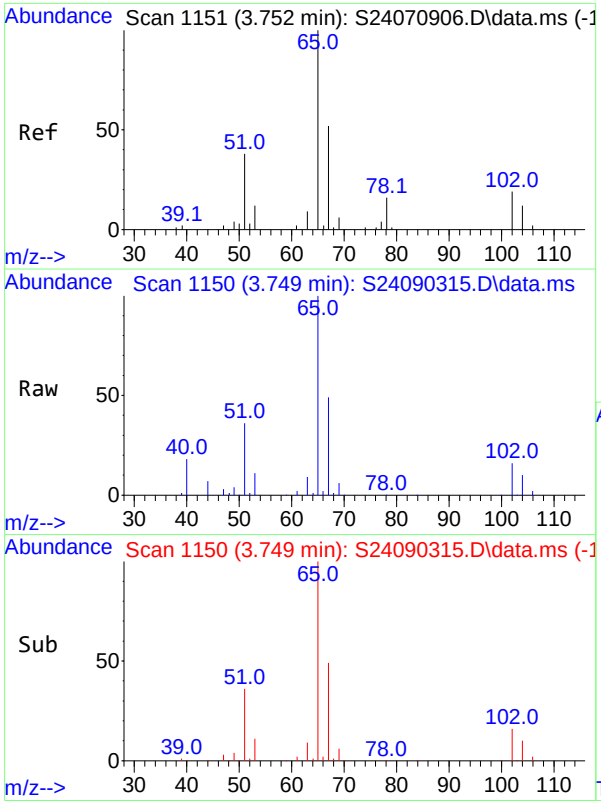


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090315.D
Acq: 03 Sep 2024 08:39 pm

Tgt Ion: 96 Resp: 235846

Ion	Ratio	Lower	Upper
96	100		
70	22.5	0.0	84.6

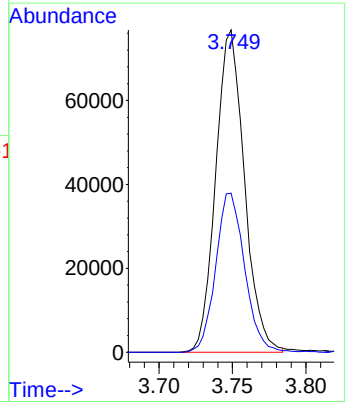


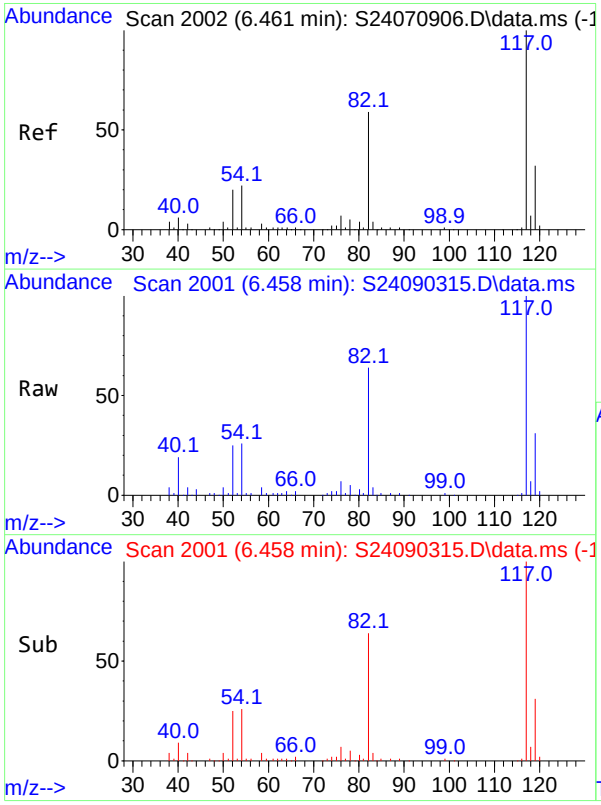


#23
1,2-DCA-d4
Concen: 120.98 ng
RT: 3.749 min Scan# 1150
Delta R.T. -0.003 min
Lab File: S24090315.D
Acq: 03 Sep 2024 08:39 pm

Tgt Ion: 65 Resp: 104558

Ion	Ratio	Lower	Upper
65	100		
67	49.6	41.7	62.5

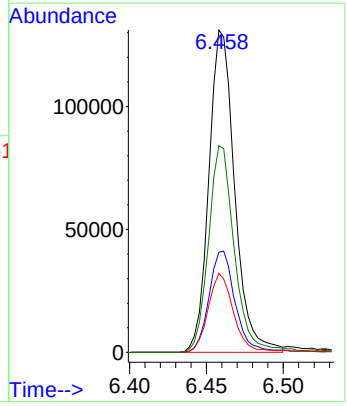


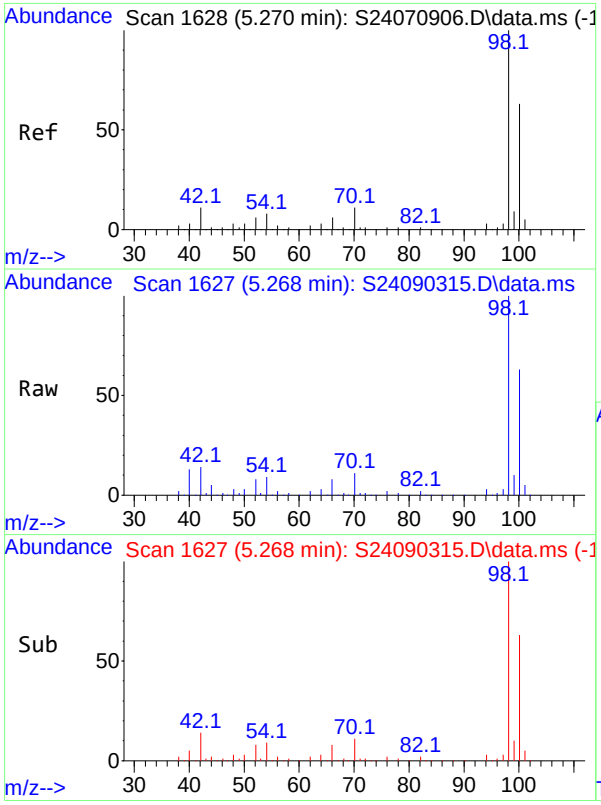


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.458 min Scan# 2001
Delta R.T. -0.003 min
Lab File: S24090315.D
Acq: 03 Sep 2024 08:39 pm

Tgt Ion:117 Resp: 152969

Ion	Ratio	Lower	Upper
117	100		
119	31.8	25.8	38.6
52	24.0	16.7	25.1
82	64.0	47.8	71.8

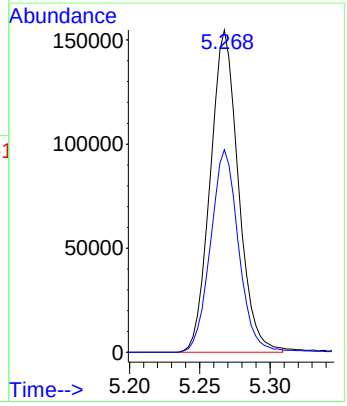


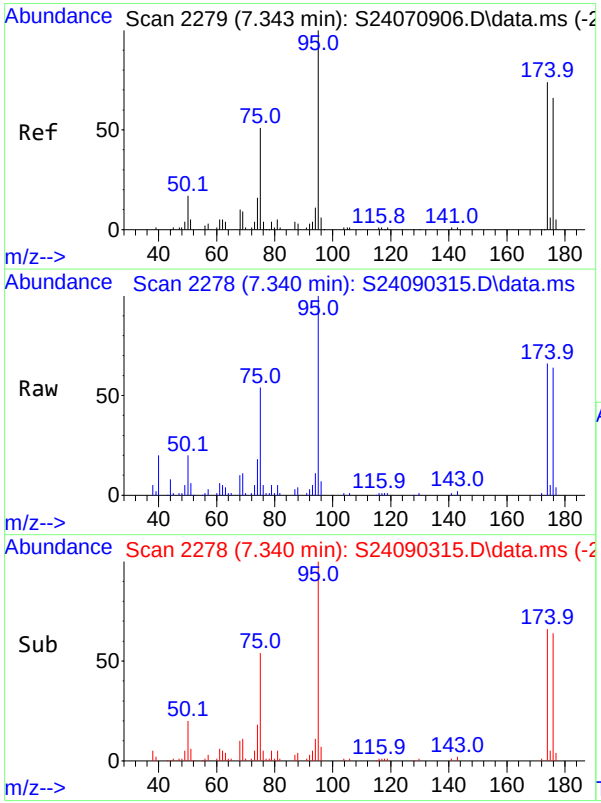


#40
Toluene-d8
Concen: 105.29 ng
RT: 5.268 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090315.D
Acq: 03 Sep 2024 08:39 pm

Tgt Ion: 98 Resp: 215209

Ion	Ratio	Lower	Upper
98	100		
100	62.6	51.1	76.7

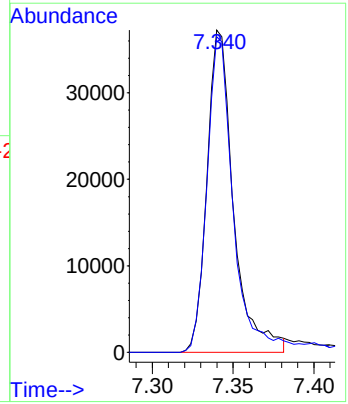


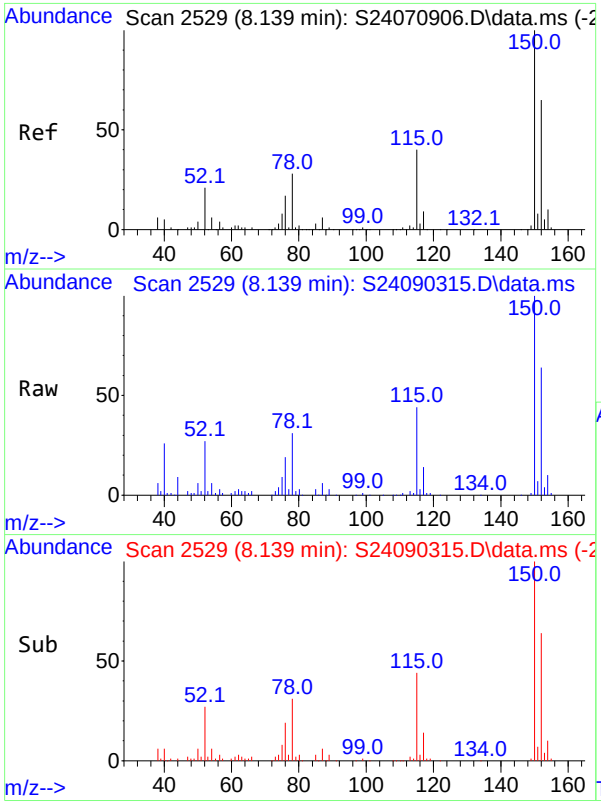


#59
Bromofluorobenzene
Concen: 68.11 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090315.D
Acq: 03 Sep 2024 08:39 pm

Tgt Ion:174 Resp: 42704

Ion	Ratio	Lower	Upper
174	100		
176	96.2	75.0	112.6

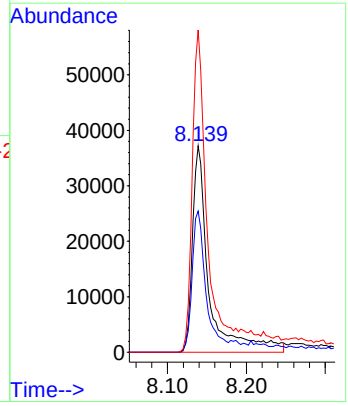




#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. -0.000 min
Lab File: S24090315.D
Acq: 03 Sep 2024 08:39 pm

Tgt Ion:152 Resp: 54513

Ion	Ratio	Lower	Upper
152	100		
115	68.7	60.5	90.7
150	156.1	129.6	194.4



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sequence Raw Data

Analysis: TO-17 (Passive)

Analyzed: 9/3/2024 9:09:00PM

Lab Number: B24I002-CCV1

QC Description: LCS, Closing Calibration Verification

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090316.D
Acq On : 03 Sep 2024 09:09 pm
Operator : KAI
Sample : B24I002-CCV1
Misc : LCS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 04 11:00:10 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.985	96	236233	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	158699	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	75068	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.749	65	51259	59.21	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 59.21%#				
40) Toluene-d8	5.267	98	107178	50.54	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 50.54%#				
59) Bromofluorobenzene	7.340	174	26173	40.23	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 40.23%#				
Target Compounds							Qvalue
4) Vinyl Chloride	1.622	62	29900	48.84	ng		98
9) 1,1-Dichloroethene	2.205	96	26220	47.97	ng		91
10) Methylene Chloride	2.457	84	35689	54.60	ng		95
11) 1,1,2-Trichlorotrifluo...	2.208	101	35870	56.54	ng		97
12) Carbon disulfide	2.329	76	97646	90.68	ng		99
14) trans-1,2-Dichloroethene	2.613	61	53470	56.17	ng		94
15) Methyl-t-butyl ether	2.603	73	95272	49.91	ng	#	96
16) 1,1-Dichloroethane	2.854	63	67710	57.35	ng		99
18) cis-1,2-Dichloroethene	3.201	96	36258	50.33	ng		94
21) Chloroform	3.415	83	71917	58.62	ng		98
24) 1,2-Dichloroethane	3.803	62	63282	59.93	ng		91
25) 1,1,1-Trichloroethane	3.529	97	61325	54.77	ng		96
27) Carbon Tetrachloride	3.641	117	55631	56.42	ng		99
28) Benzene	3.771	77	32953	50.66	ng		95
31) Trichloroethene	4.258	130	33866	48.19	ng		99
34) 1,4-Dioxane	4.503	88	23446	44.45	ng		90
38) 1,1,2-Trichloroethane	5.694	99	21662	55.13	ng		90
41) Toluene	5.328	92	71527	48.06	ng		97
46) 1,2-Dibromoethane (EDB)	6.086	107	33918	56.75	ng		100
47) Tetrachloroethene	5.767	131	28491	50.73	ng		97
48) 1,1,1,2-Tetrachloroethane	6.553	131	32531	56.29	ng		100
49) Chlorobenzene	6.480	112	82435	48.90	ng		99
50) Ethylbenzene	6.569	106	36829	43.38	ng		96
51) p & m-Xylene	6.668	106	44365	42.67	ng		99
56) o-Xylene	6.951	106	43707	44.23	ng		94
57) 1,2,3-Trichloropropane	7.477	75	57430	58.29	ng		97
58) Isopropylbenzene	7.225	105	118269	44.04	ng		99
61) Bromobenzene	7.432	156	29472	46.62	ng		77
65) 1,3,5-Trimethylbenzene	7.652	120	44331	44.22	ng		96
68) 1,2,4-Trimethylbenzene	7.906	120	42914	45.45	ng		90
70) 1,3-Dichlorobenzene	8.085	146	58749	51.62	ng		98
72) 1,4-Dichlorobenzene	8.155	146	59087	48.32	ng		98
73) 1,2-Dichlorobenzene	8.387	146	59977	48.86	ng		97
79) 1,2,4-Trichlorobenzene	9.422	180	37956	43.97	ng		100
80) Naphthalene	9.584	128	106583	40.84	ng		99
82) 1,2,3-Trichlorobenzene	9.724	180	39092	41.83	ng		96
84) 2-Methylnaphthalene	10.272	142	51303	36.00	ng		96

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090316.D
Acq On : 03 Sep 2024 09:09 pm
Operator : KAI
Sample : B24I002-CCV1
Misc : LCS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 04 11:00:10 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

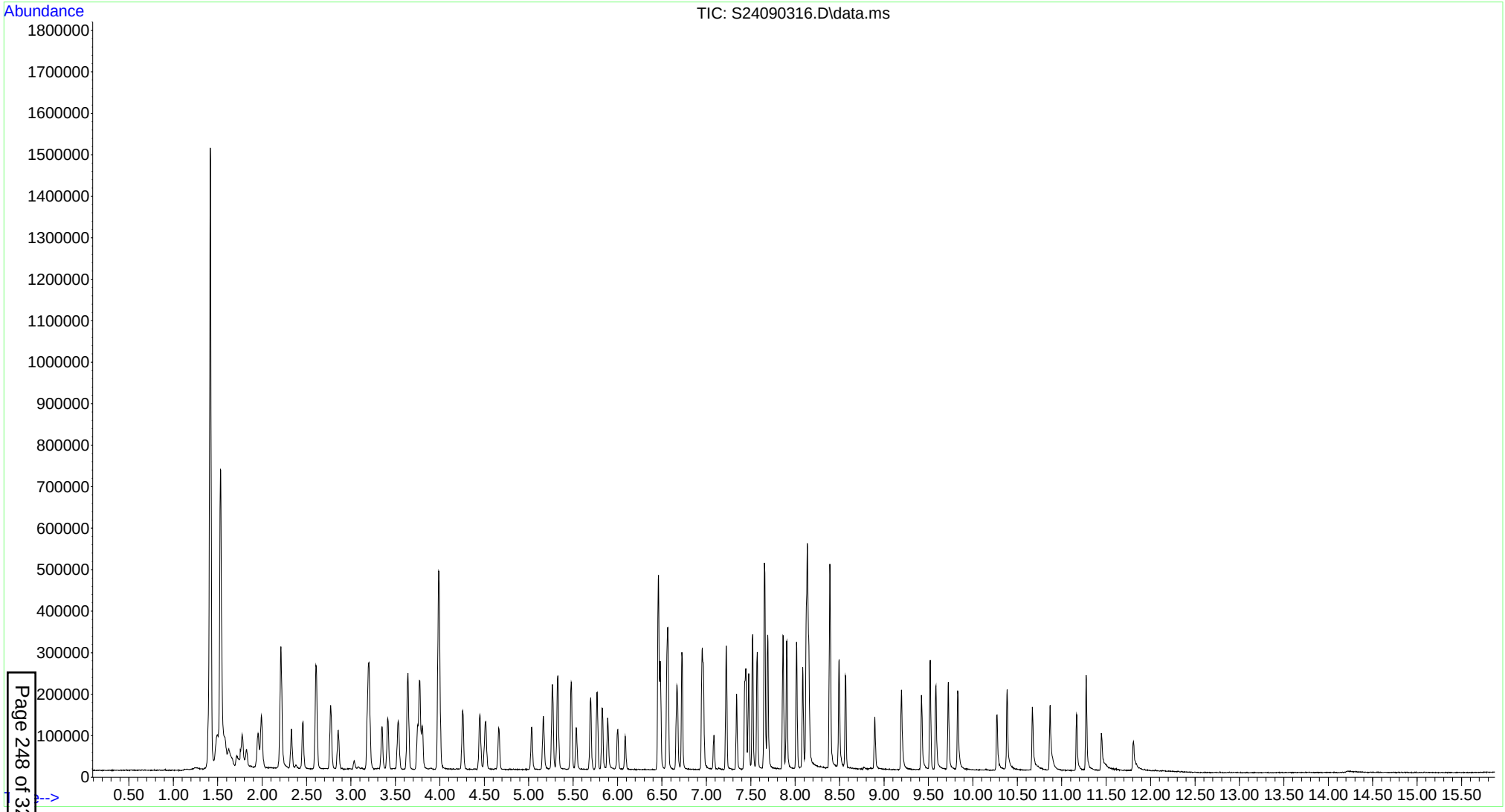
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

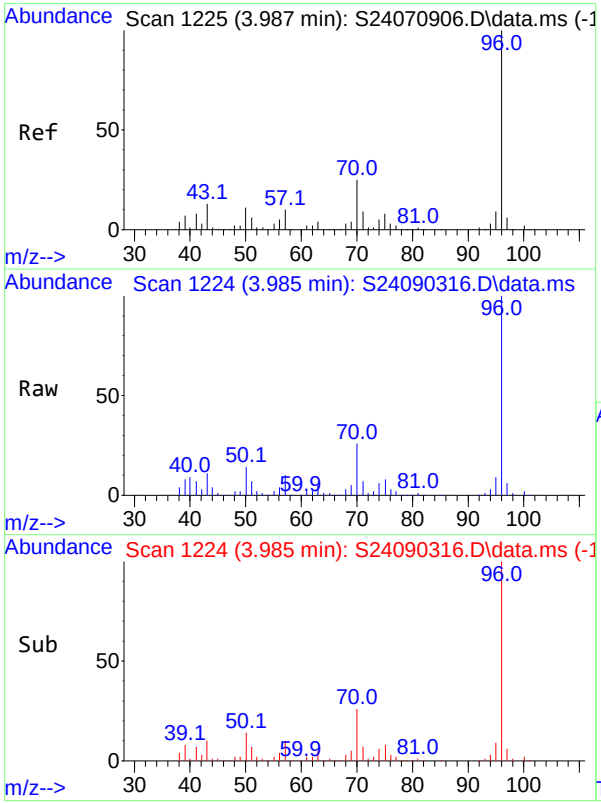
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : Z:\GCMS\data\24\09\S240903\
Data File : S24090316.D
Acq On : 03 Sep 2024 09:09 pm
Operator : KAI
Sample : B24I002-CCV1
Misc : LCS
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Sep 04 11:00:10 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL TO17.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Sep 04 10:53:16 2024
Response via : Initial Calibration

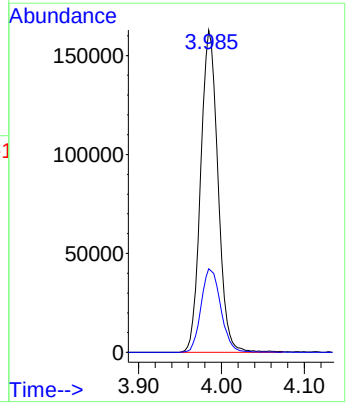


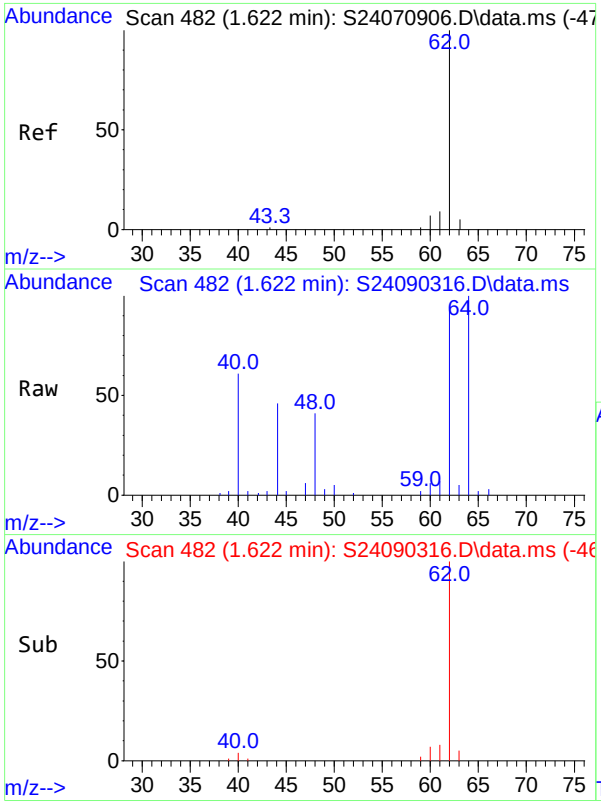


#1
Fluorobenzene
Concen: 100.00 ng
RT: 3.985 min Scan# 1224
Delta R.T. -0.002 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 96 Resp: 236233

Ion	Ratio	Lower	Upper
96	100		
70	29.5	0.0	84.6

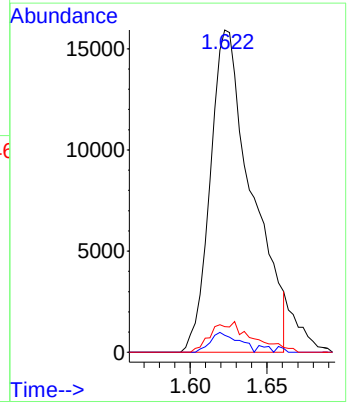


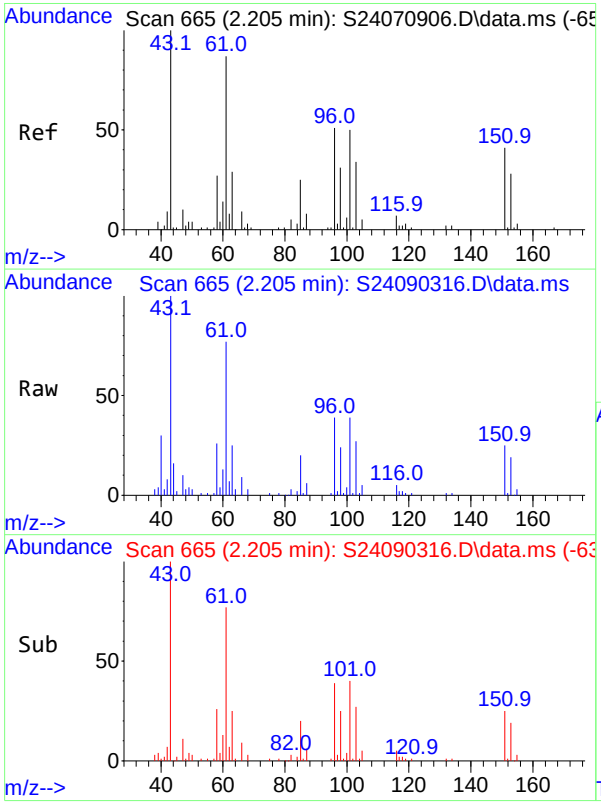


#4
Vinyl Chloride
Concen: 48.84 ng
RT: 1.622 min Scan# 482
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 62 Resp: 29900

Ion	Ratio	Lower	Upper
62	100		
63	4.1	3.9	5.9
61	9.2	6.9	10.3

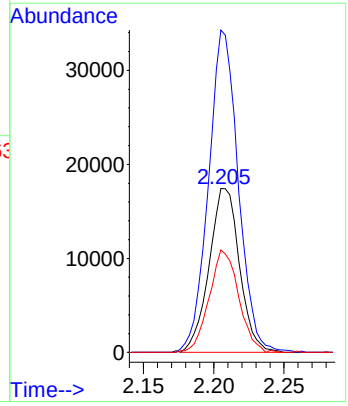


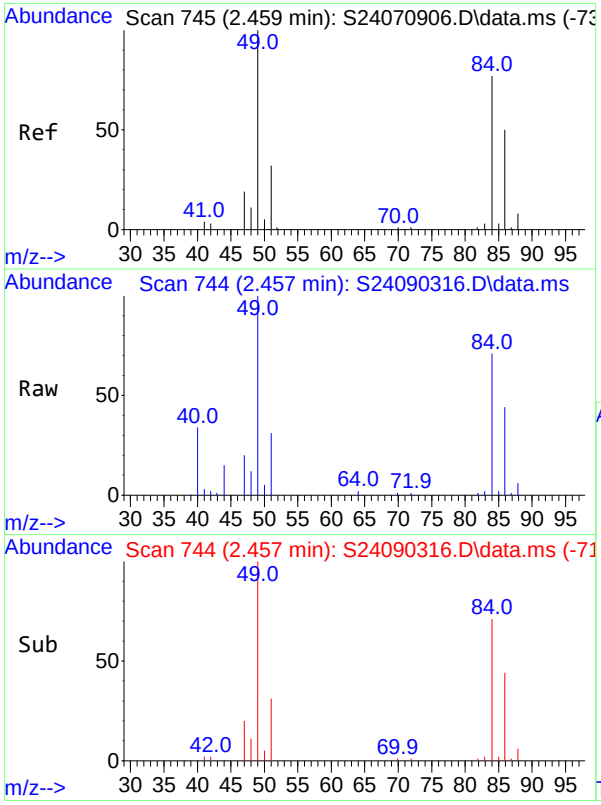


#9
1,1-Dichloroethene
Concen: 47.97 ng
RT: 2.205 min Scan# 665
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 96 Resp: 26220

Ion	Ratio	Lower	Upper
96	100		
61	192.6	141.5	212.3
63	60.4	46.5	69.7

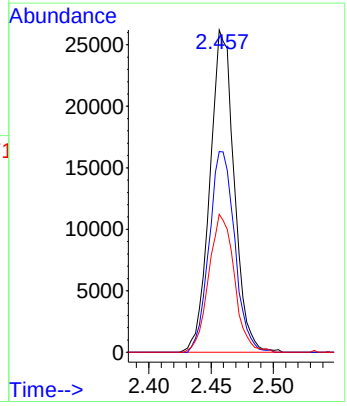


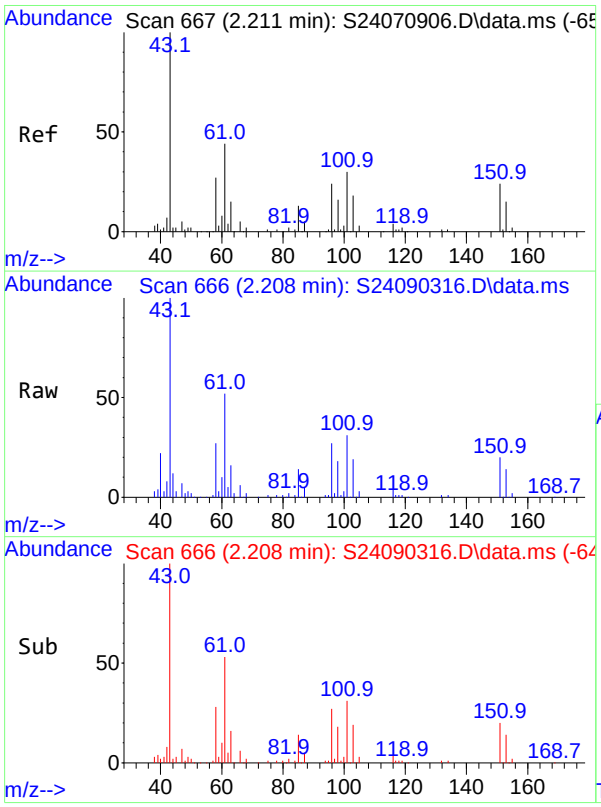


#10
Methylene Chloride
Concen: 54.60 ng
RT: 2.457 min Scan# 744
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 84 Resp: 35689

Ion	Ratio	Lower	Upper
84	100		
86	65.4	50.1	75.1
51	45.1	32.3	48.5

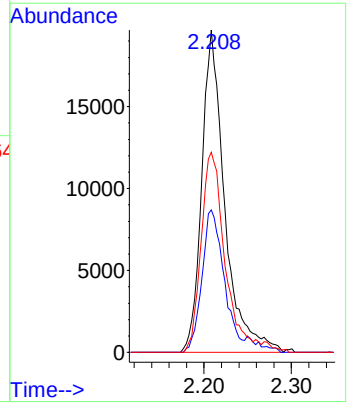


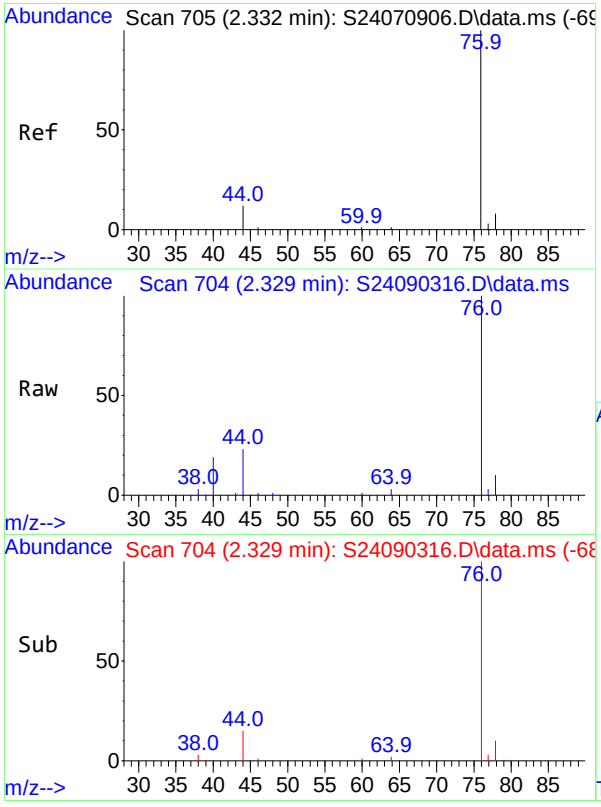


#11
1,1,2-Trichlorotrifluoroethane (Fr.113)
Concen: 56.54 ng
RT: 2.208 min Scan# 666
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:101 Resp: 35870

Ion	Ratio	Lower	Upper
101	100		
153	45.7	39.0	58.4
103	65.8	51.3	76.9

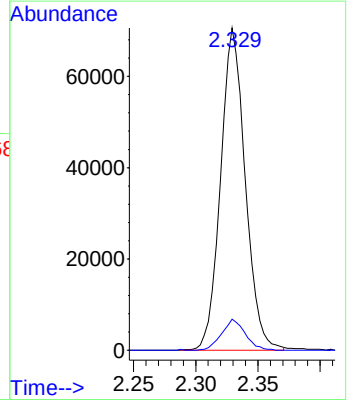


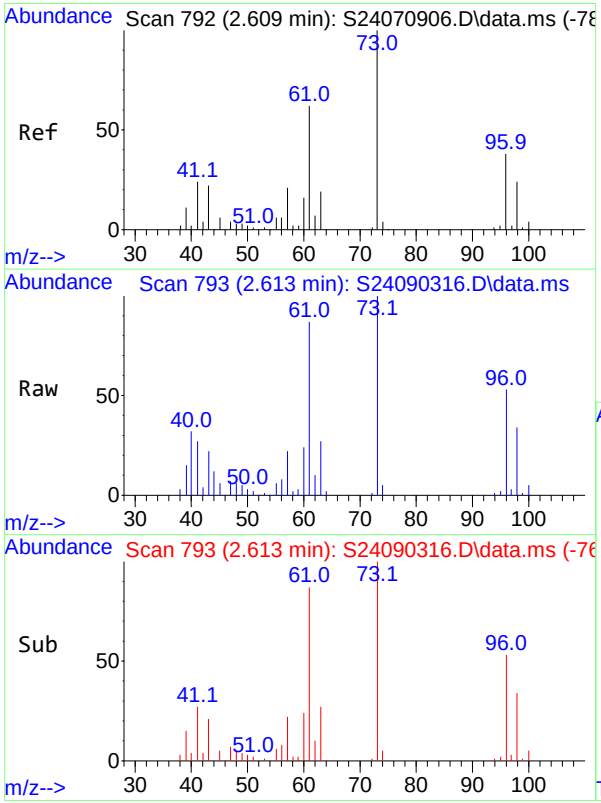


#12
Carbon disulfide
Concen: 90.68 ng
RT: 2.329 min Scan# 704
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 76 Resp: 97646

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.6	11.4

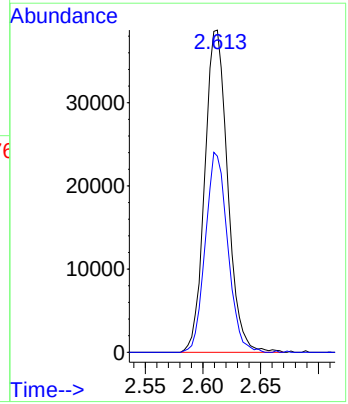


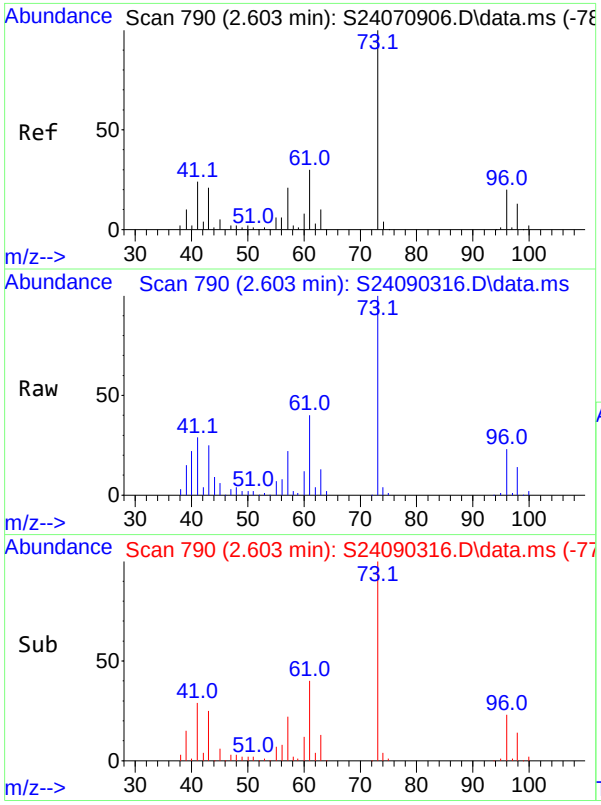


#14
trans-1,2-Dichloroethene
Concen: 56.17 ng
RT: 2.613 min Scan# 793
Delta R.T. 0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 61 Resp: 53470

Ion	Ratio	Lower	Upper
61	100		
96	60.6	52.4	78.6

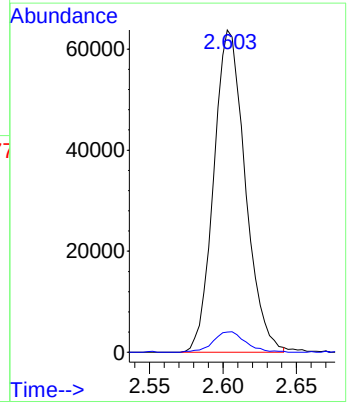


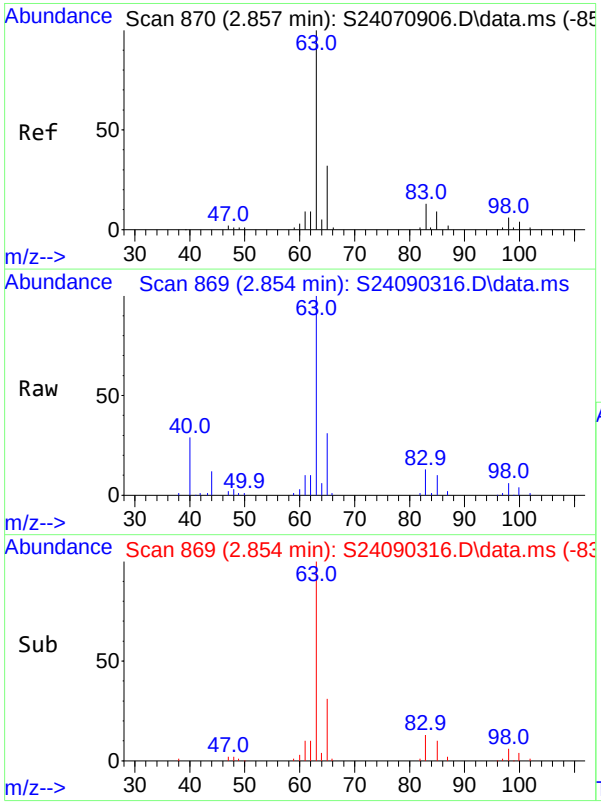


#15
Methyl-t-butyl ether
Concen: 49.91 ng
RT: 2.603 min Scan# 790
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 73 Resp: 95272

Ion	Ratio	Lower	Upper
73	100		
45	6.7	4.3	6.5#

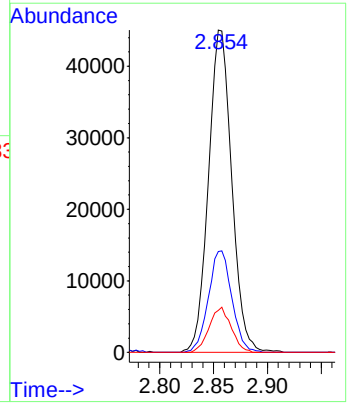


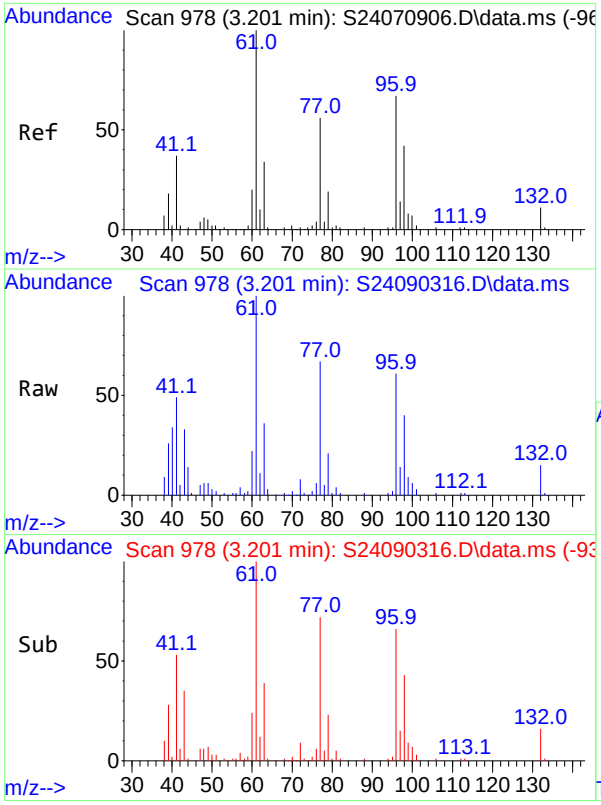


#16
1,1-Dichloroethane
Concen: 57.35 ng
RT: 2.854 min Scan# 869
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 63 Resp: 67710

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.8	38.6
83	13.2	10.7	16.1

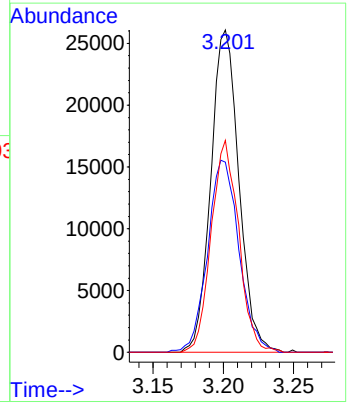


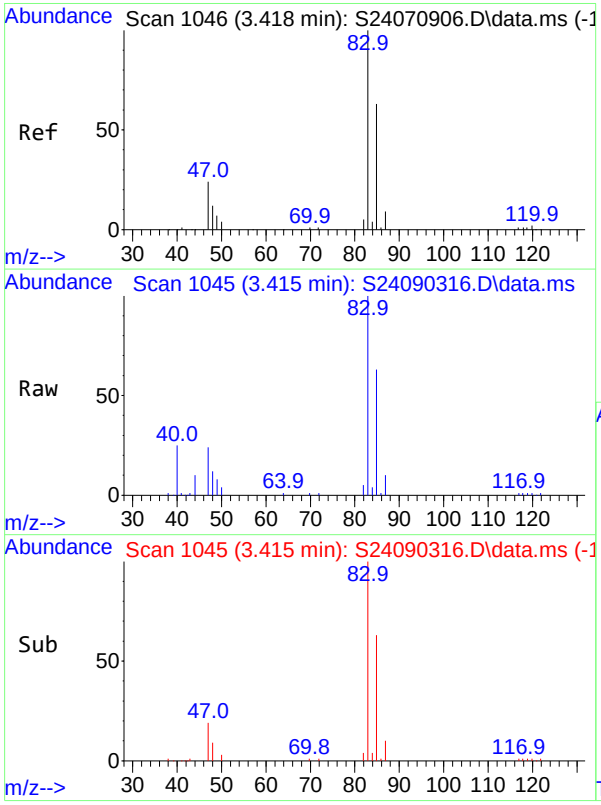


#18
cis-1,2-Dichloroethene
Concen: 50.33 ng
RT: 3.201 min Scan# 978
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 96 Resp: 36258

Ion	Ratio	Lower	Upper
96	100		
63	66.6	47.2	70.8
98	64.1	52.6	79.0

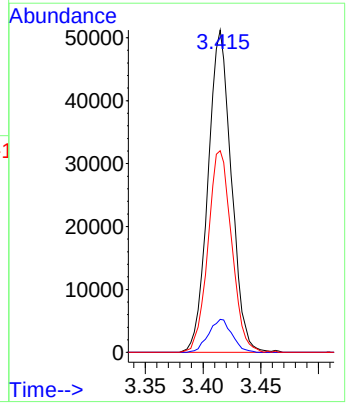


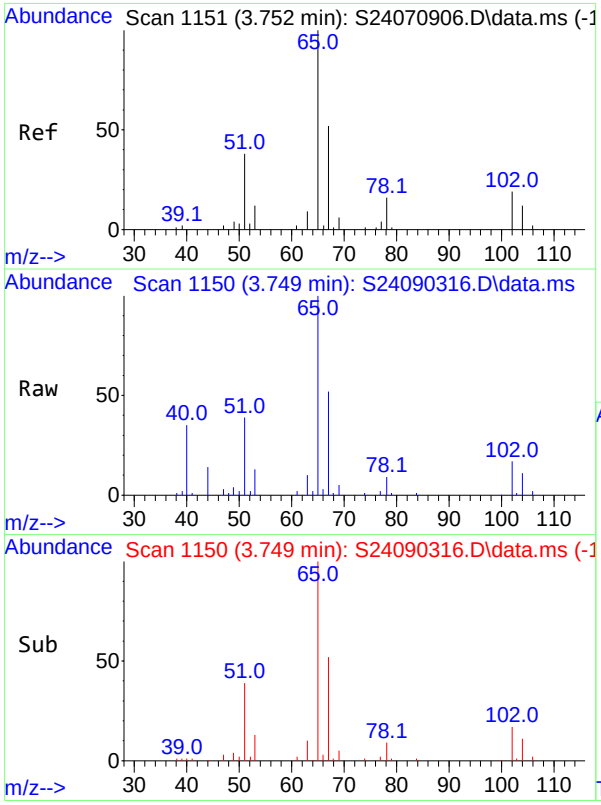


#21
Chloroform
Concen: 58.62 ng
RT: 3.415 min Scan# 1045
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 83 Resp: 71917

Ion	Ratio	Lower	Upper
83	100		
87	10.3	8.2	12.2
85	63.5	51.9	77.9

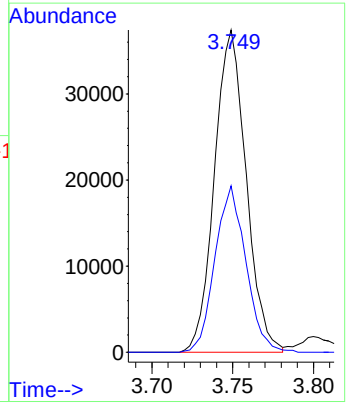


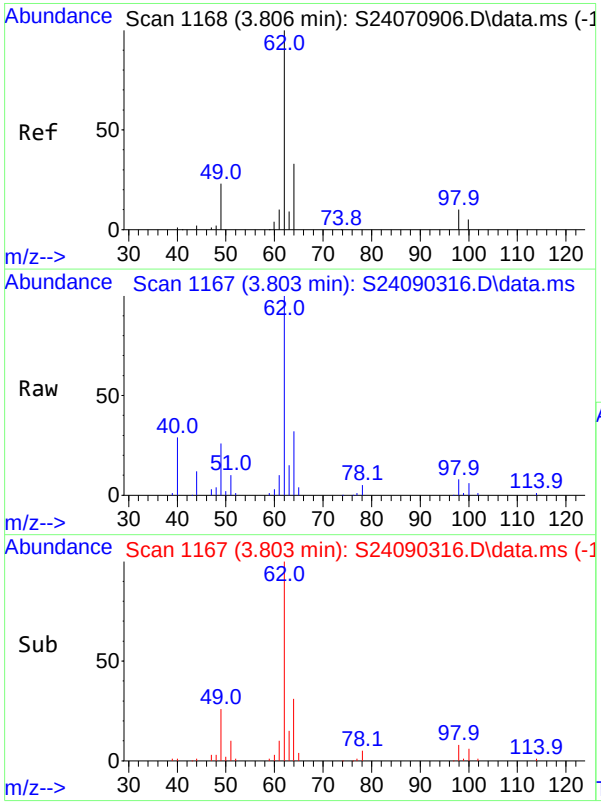


#23
1,2-DCA-d4
Concen: 59.21 ng
RT: 3.749 min Scan# 1150
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 65 Resp: 51259

Ion	Ratio	Lower	Upper
65	100		
67	50.2	41.7	62.5

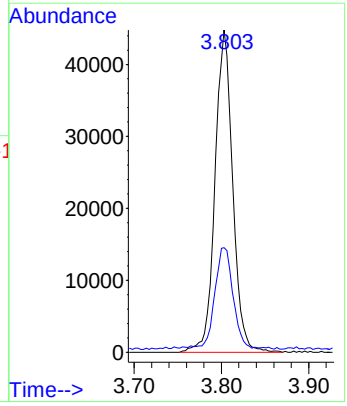


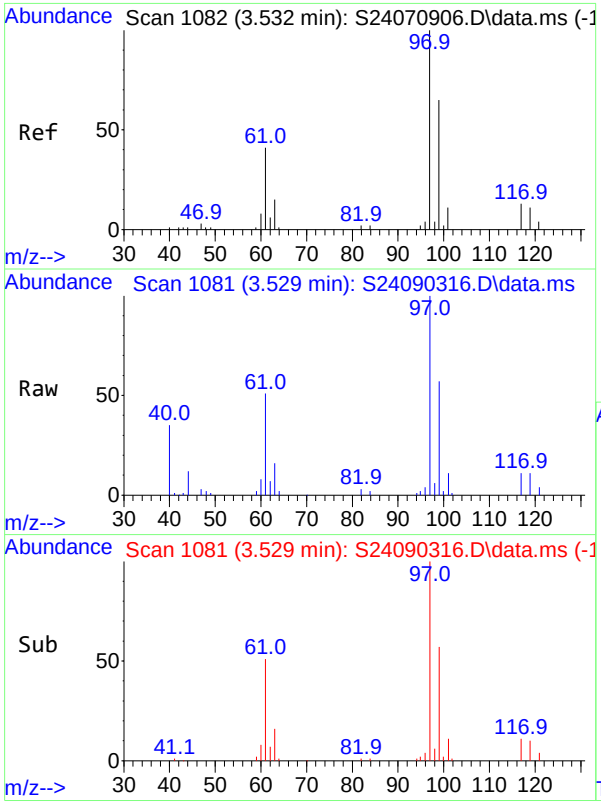


#24
1,2-Dichloroethane
Concen: 59.93 ng
RT: 3.803 min Scan# 1167
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 62 Resp: 63282

Ion	Ratio	Lower	Upper
62	100		
64	38.8	27.0	40.6

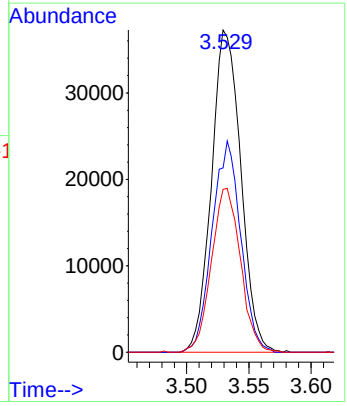


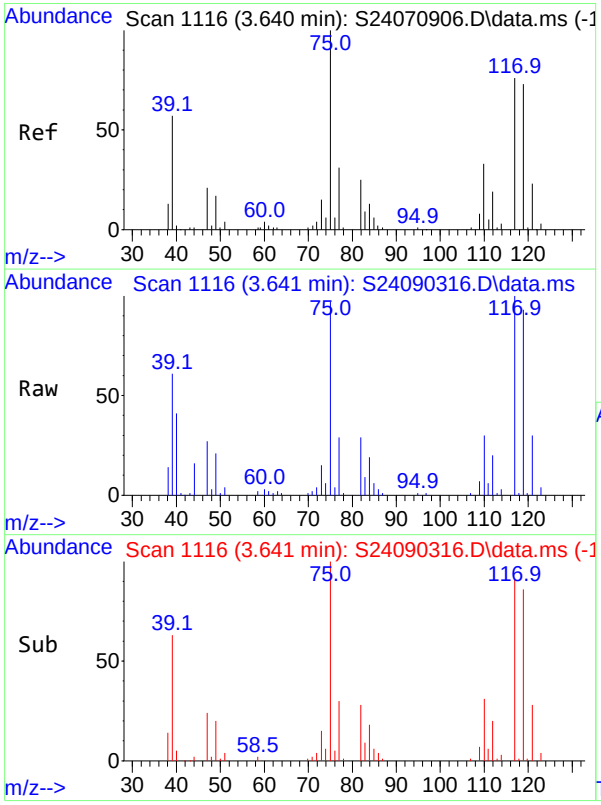


#25
1,1,1-Trichloroethane
Concen: 54.77 ng
RT: 3.529 min Scan# 1081
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 97 Resp: 61325

Ion	Ratio	Lower	Upper
97	100		
99	63.8	51.2	76.8
61	50.4	35.6	53.4

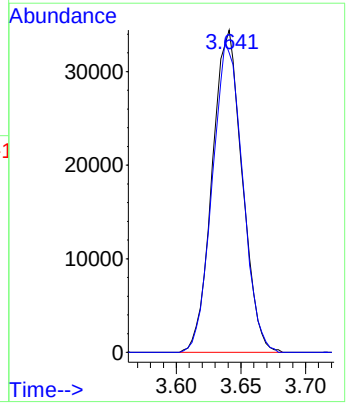


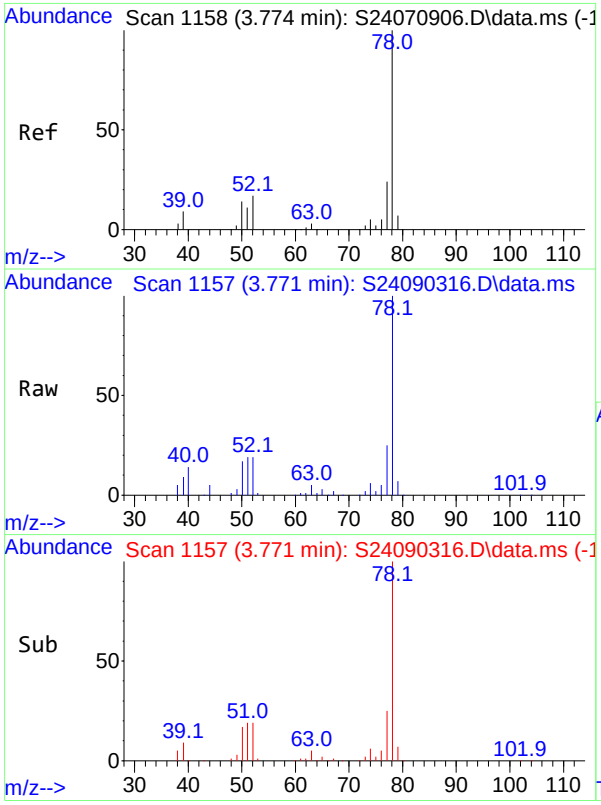


#27
Carbon Tetrachloride
Concen: 56.42 ng
RT: 3.641 min Scan# 1116
Delta R.T. 0.001 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:117 Resp: 55631

Ion	Ratio	Lower	Upper
117	100		
119	96.9	76.4	114.6

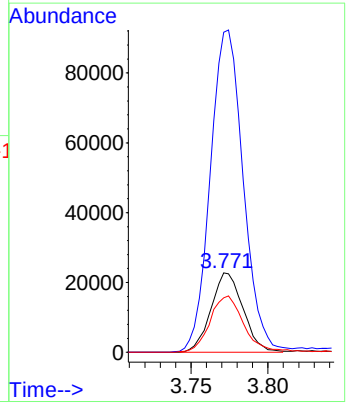


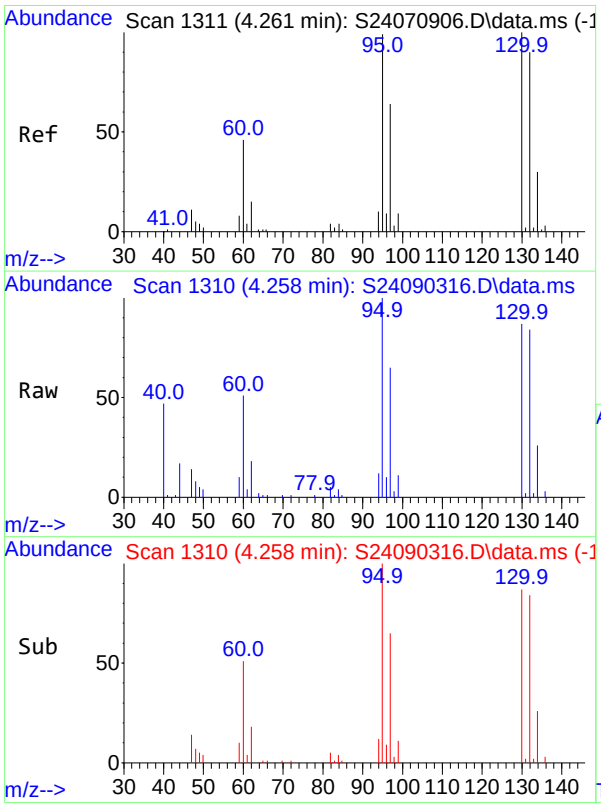


#28
Benzene
Concen: 50.66 ng
RT: 3.771 min Scan# 1157
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 77 Resp: 32953

Ion	Ratio	Lower	Upper
77	100		
78	417.4	326.8	490.2
50	74.1	51.8	77.8

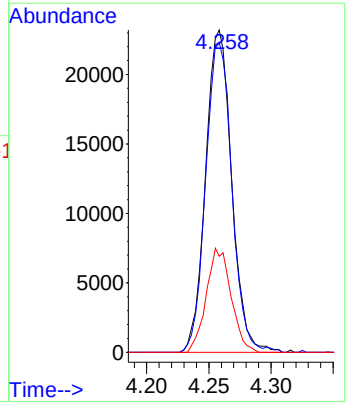


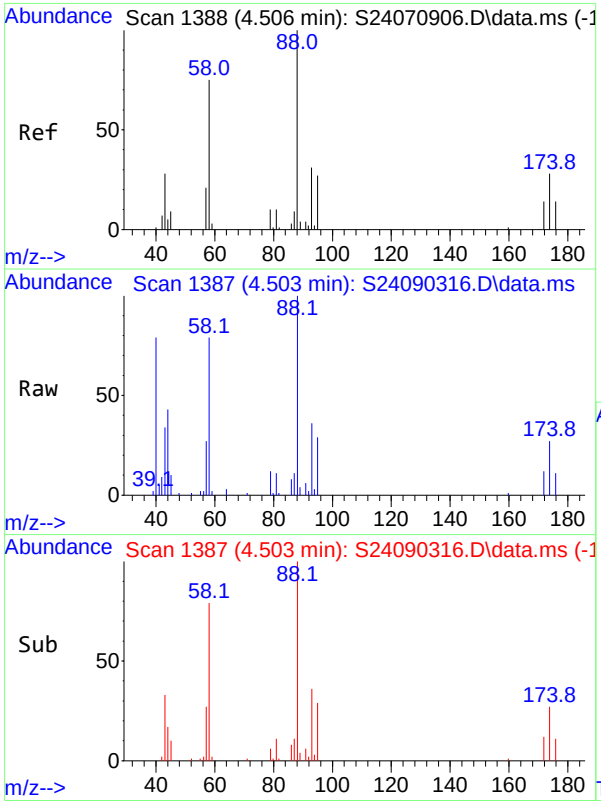


#31
Trichloroethene
Concen: 48.19 ng
RT: 4.258 min Scan# 1310
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:130 Resp: 33866

Ion	Ratio	Lower	Upper
130	100		
132	96.8	76.5	114.7
134	30.6	24.2	36.4

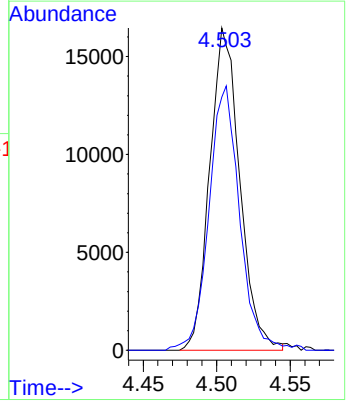


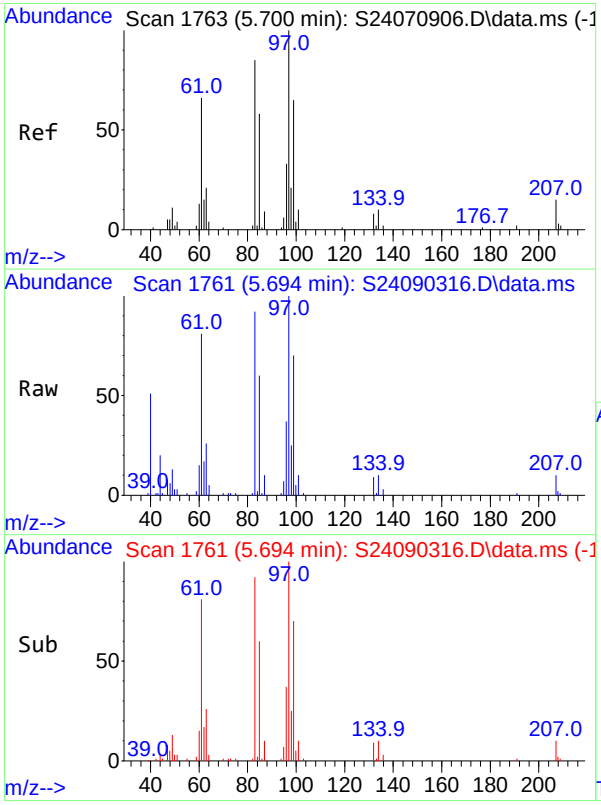


#34
1,4-Dioxane
Concen: 44.45 ng
RT: 4.503 min Scan# 1387
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 88 Resp: 23446

Ion	Ratio	Lower	Upper
88	100		
58	83.1	59.5	89.3

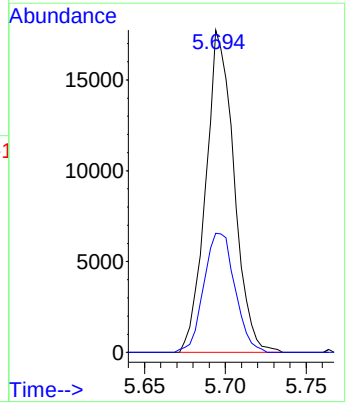


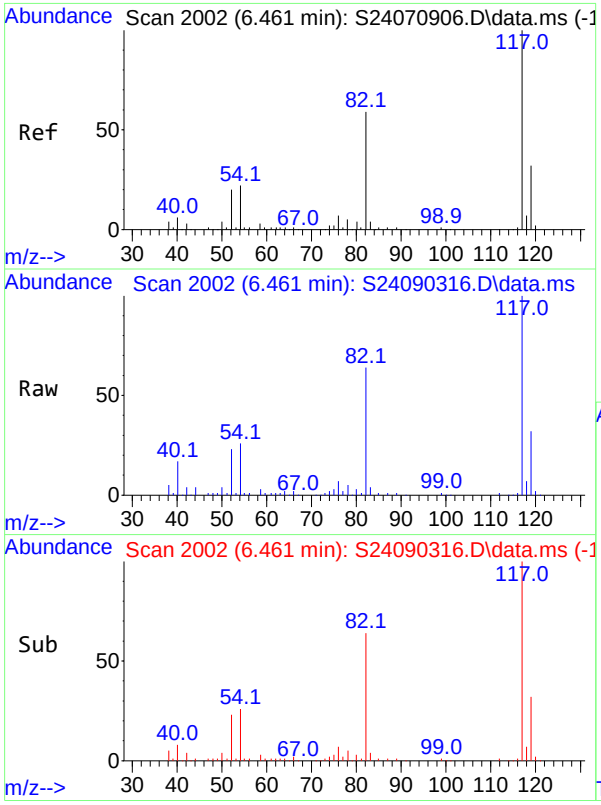


#38
1,1,2-Trichloroethane
Concen: 55.13 ng
RT: 5.694 min Scan# 1761
Delta R.T. -0.006 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 99 Resp: 21662

Ion	Ratio	Lower	Upper
99	100		
63	40.7	27.8	41.8

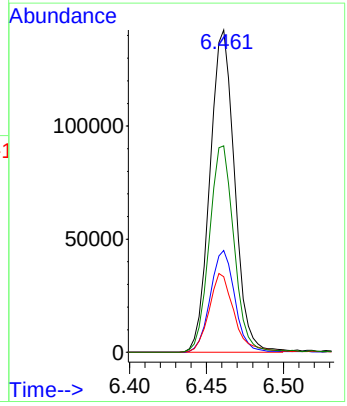


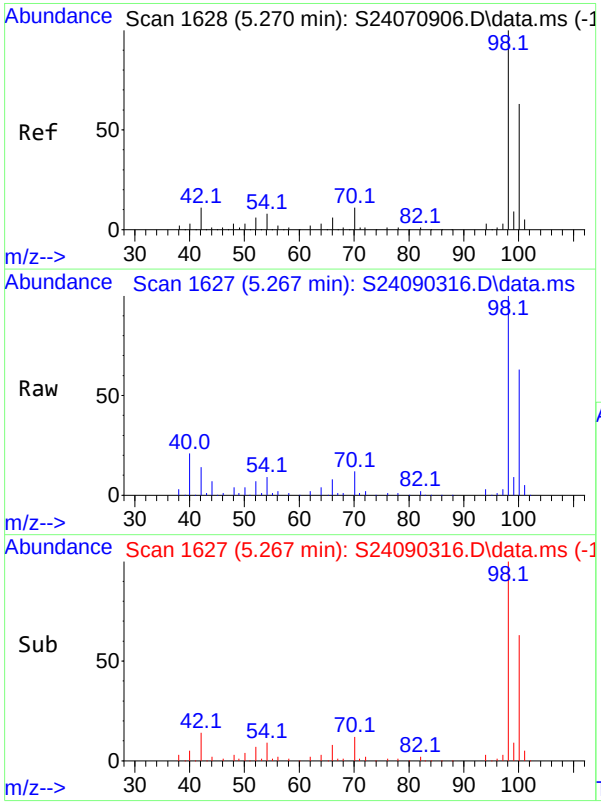


#39
Chlorobenzene-d5
Concen: 100.00 ng
RT: 6.461 min Scan# 2002
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:117 Resp: 158699

Ion	Ratio	Lower	Upper
117	100		
119	31.4	25.8	38.6
52	24.9	16.7	25.1
82	63.9	47.8	71.8

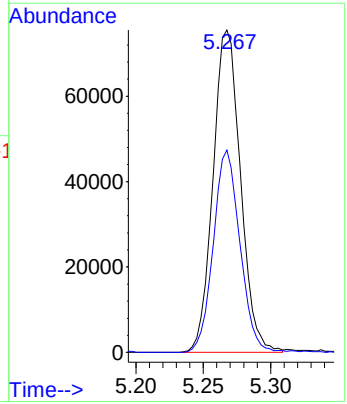


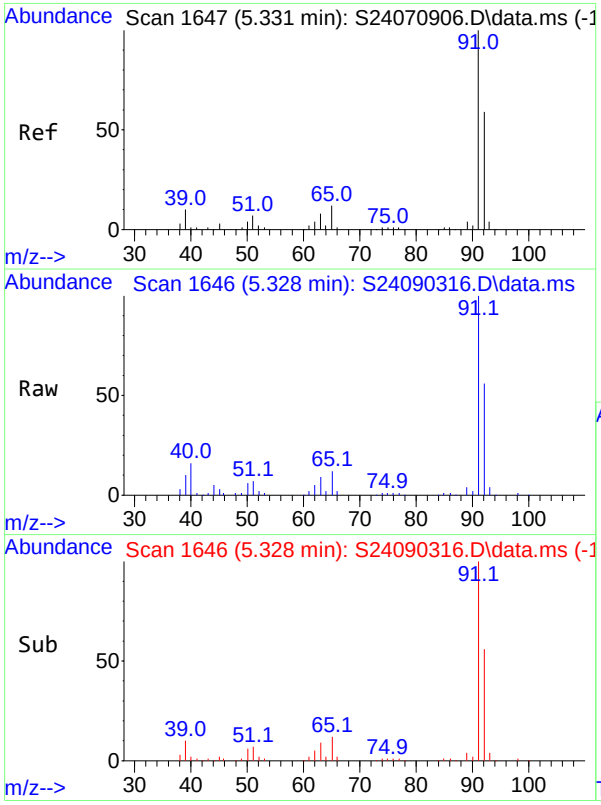


#40
Toluene-d8
Concen: 50.54 ng
RT: 5.267 min Scan# 1627
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 98 Resp: 107178

Ion	Ratio	Lower	Upper
98	100		
100	60.6	51.1	76.7

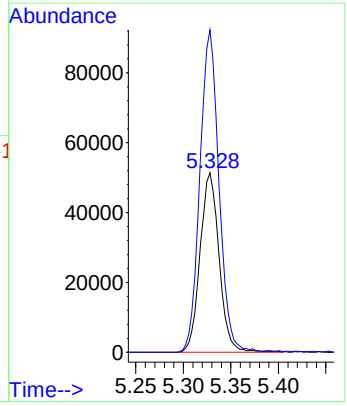


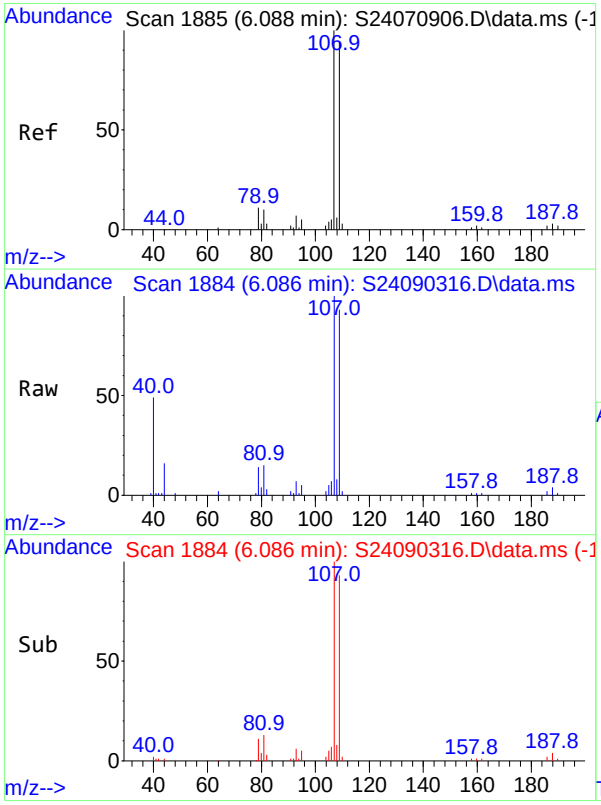


#41
Toluene
Concen: 48.06 ng
RT: 5.328 min Scan# 1646
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 92 Resp: 71527

Ion	Ratio	Lower	Upper
92	100		
91	181.3	141.3	211.9

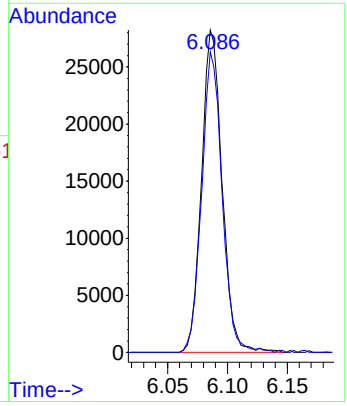


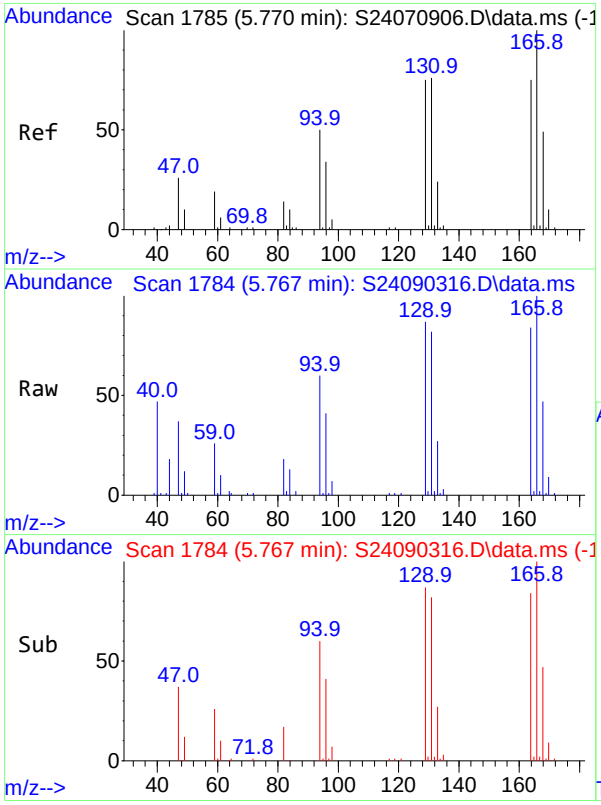


#46
1,2-Dibromoethane (EDB)
Concen: 56.75 ng
RT: 6.086 min Scan# 1884
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:107 Resp: 33918

Ion	Ratio	Lower	Upper
107	100		
109	92.9	74.3	111.5

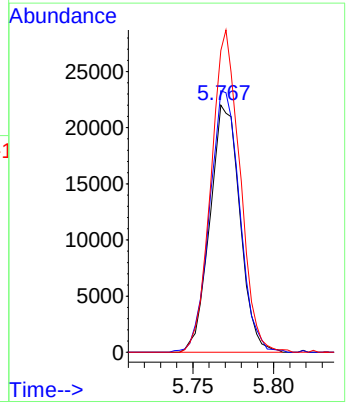


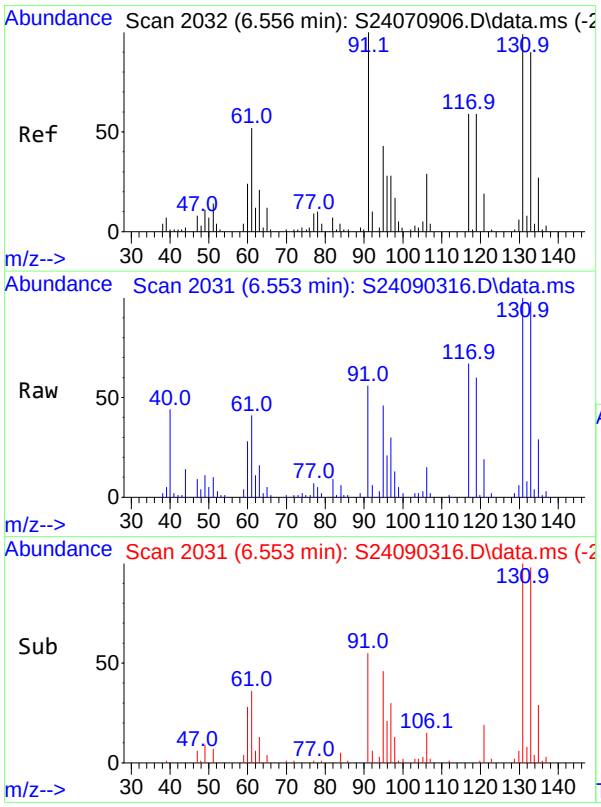


#47
Tetrachloroethene
Concen: 50.73 ng
RT: 5.767 min Scan# 1784
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:131 Resp: 28491

Ion	Ratio	Lower	Upper
131	100		
129	106.3	82.9	124.3
166	125.7	103.7	155.5

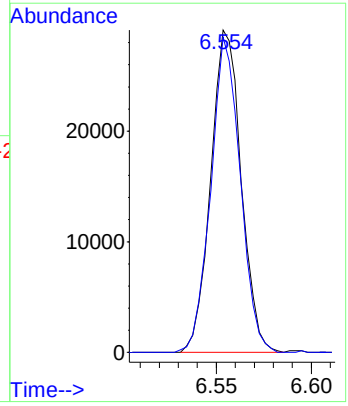


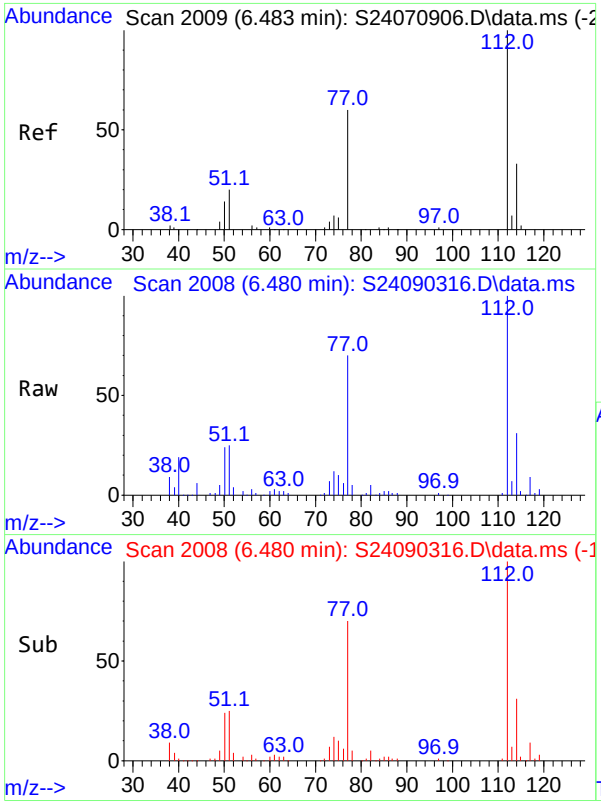


#48
1,1,1,2-Tetrachloroethane
Concen: 56.29 ng
RT: 6.553 min Scan# 2031
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:131 Resp: 32531

Ion	Ratio	Lower	Upper
131	100		
133	94.5	75.8	113.8

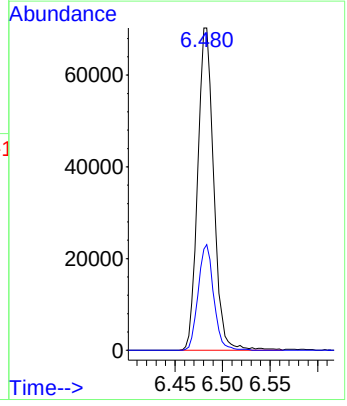


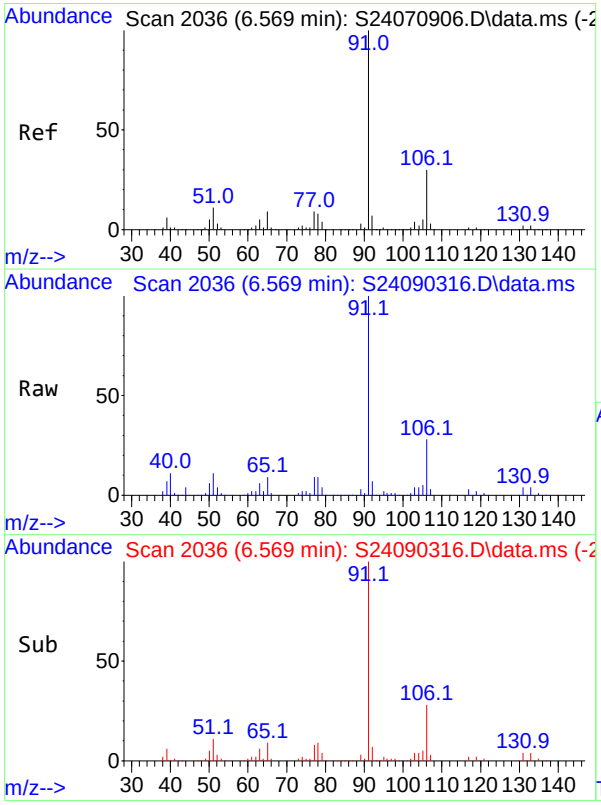


#49
Chlorobenzene
Concen: 48.90 ng
RT: 6.480 min Scan# 2008
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:112 Resp: 82435

Ion	Ratio	Lower	Upper
112	100		
114	31.8	25.8	38.8

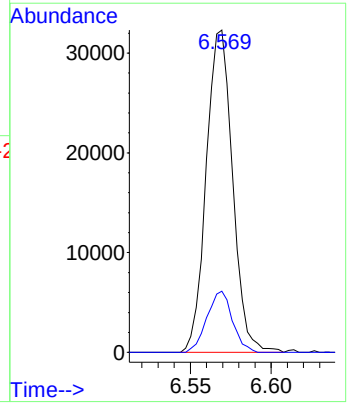


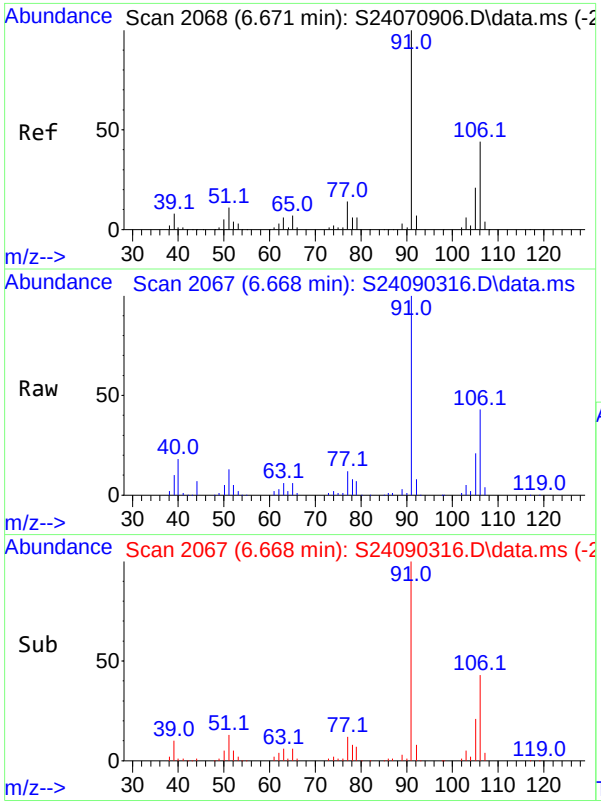


#50
Ethylbenzene
Concen: 43.38 ng
RT: 6.569 min Scan# 2036
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:106 Resp: 36829

Ion	Ratio	Lower	Upper
106	100		
105	18.3	13.3	19.9

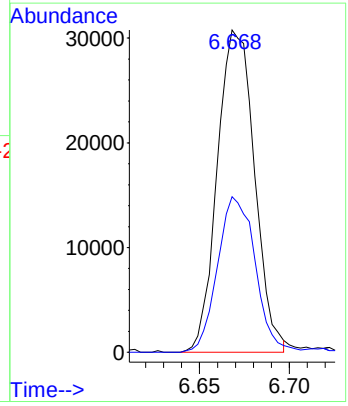


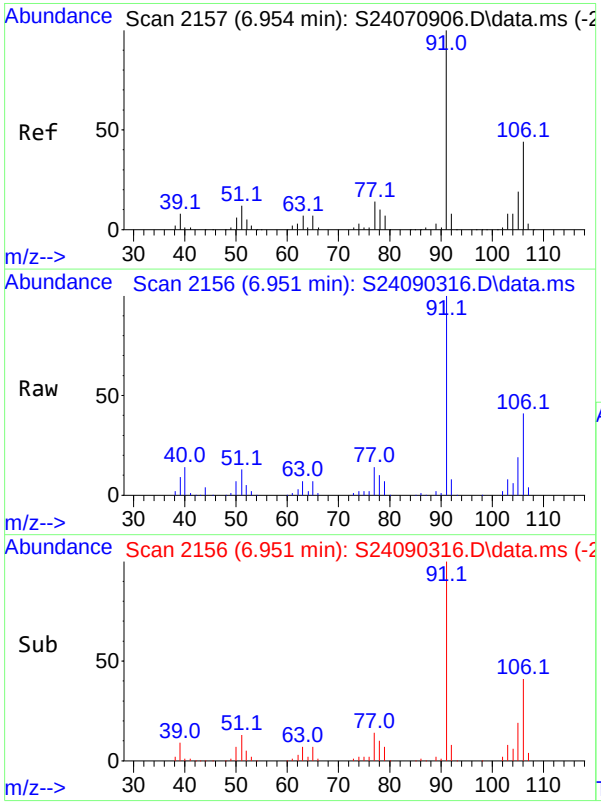


#51
p & m-Xylene
Concen: 42.67 ng
RT: 6.668 min Scan# 2067
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:106 Resp: 44365

Ion	Ratio	Lower	Upper
106	100		
105	48.4	38.2	57.4

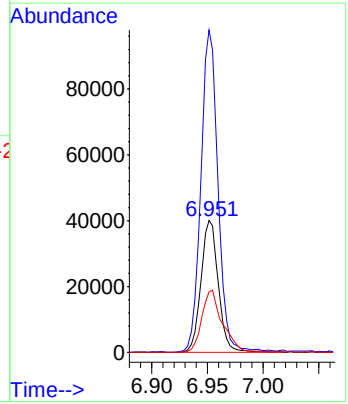


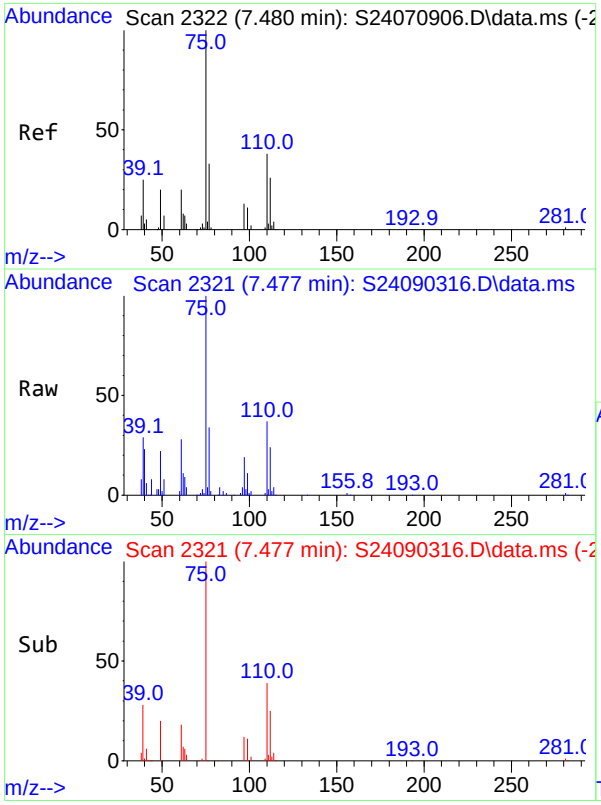


#56
o-Xylene
Concen: 44.23 ng
RT: 6.951 min Scan# 2156
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:106 Resp: 43707

Ion	Ratio	Lower	Upper
106	100		
91	248.4	188.8	283.2
105	55.9	44.0	66.0

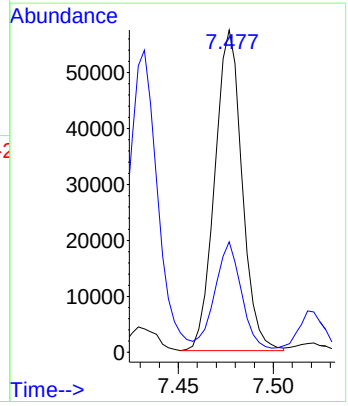


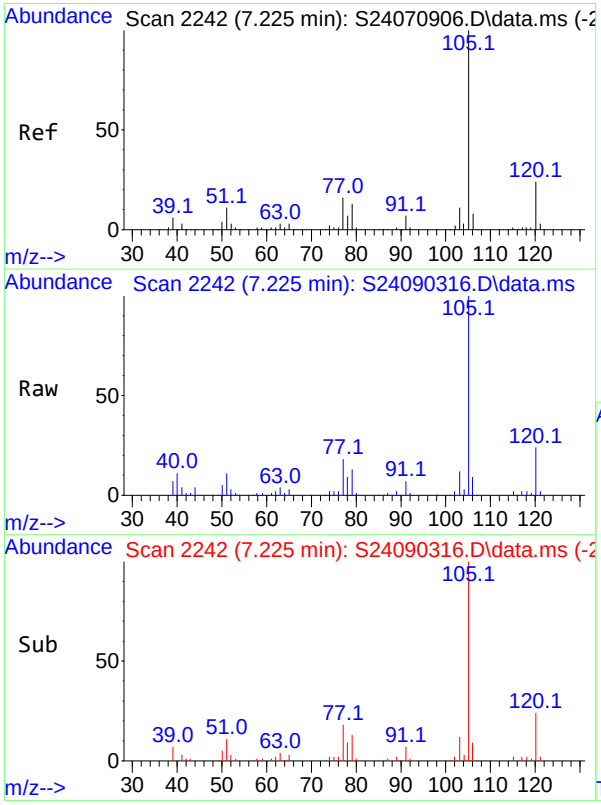


#57
1,2,3-Trichloropropane
Concen: 58.29 ng
RT: 7.477 min Scan# 2321
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion: 75 Resp: 57430

Ion	Ratio	Lower	Upper
75	100		
77	31.6	26.7	40.1

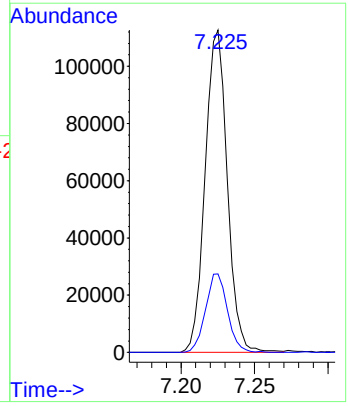


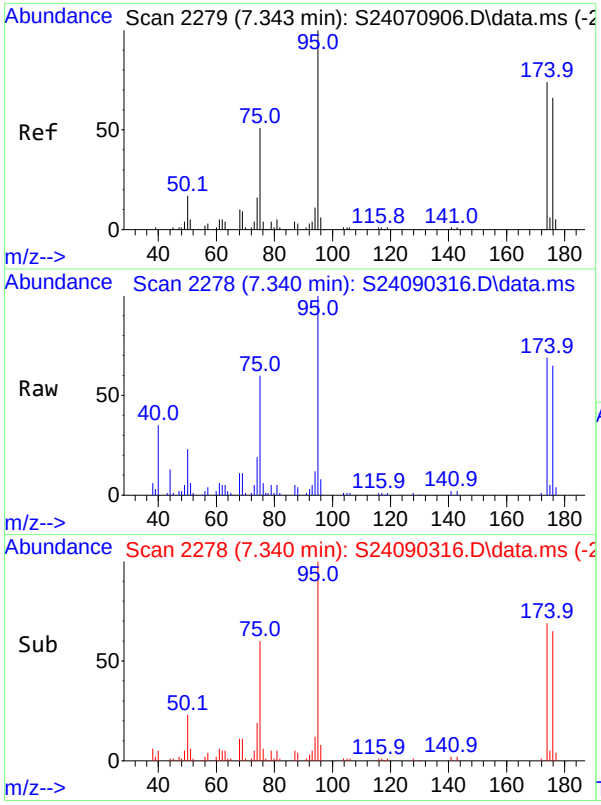


#58
Isopropylbenzene
Concen: 44.04 ng
RT: 7.225 min Scan# 2242
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:105 Resp: 118269

Ion	Ratio	Lower	Upper
105	100		
120	24.2	19.8	29.6

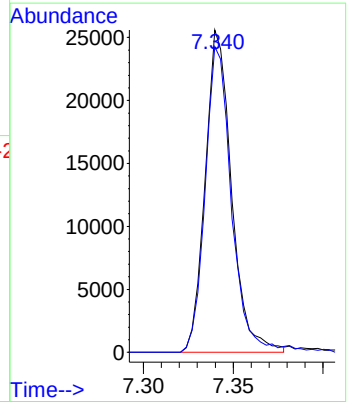


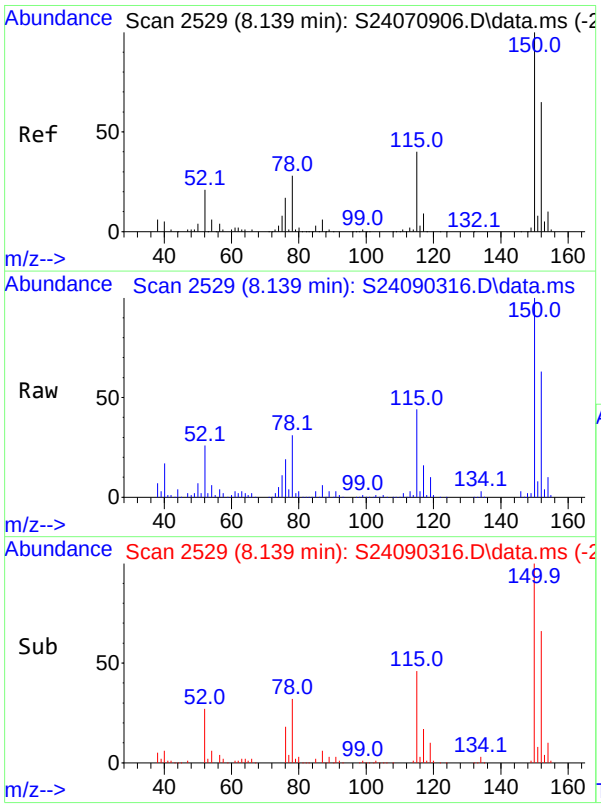


#59
Bromofluorobenzene
Concen: 40.23 ng
RT: 7.340 min Scan# 2278
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:174 Resp: 26173

Ion	Ratio	Lower	Upper
174	100		
176	94.0	75.0	112.6

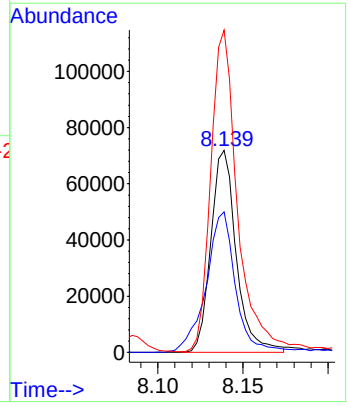


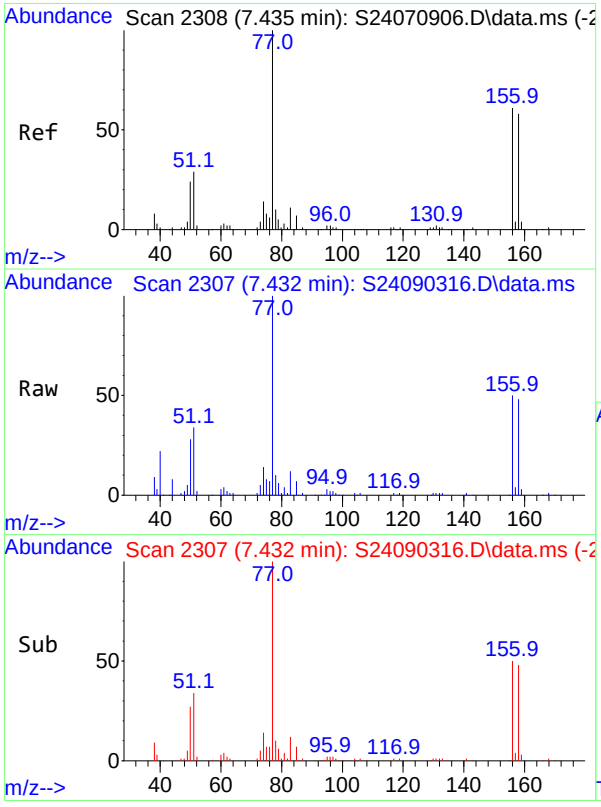


#60
1,4-Dichlorobenzene-d4
Concen: 100.00 ng
RT: 8.139 min Scan# 2529
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:152 Resp: 75068

Ion	Ratio	Lower	Upper
152	100		
115	79.8	60.5	90.7
150	166.1	129.6	194.4

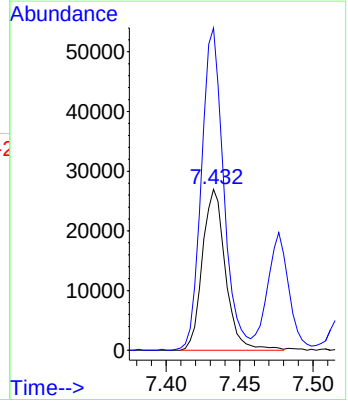


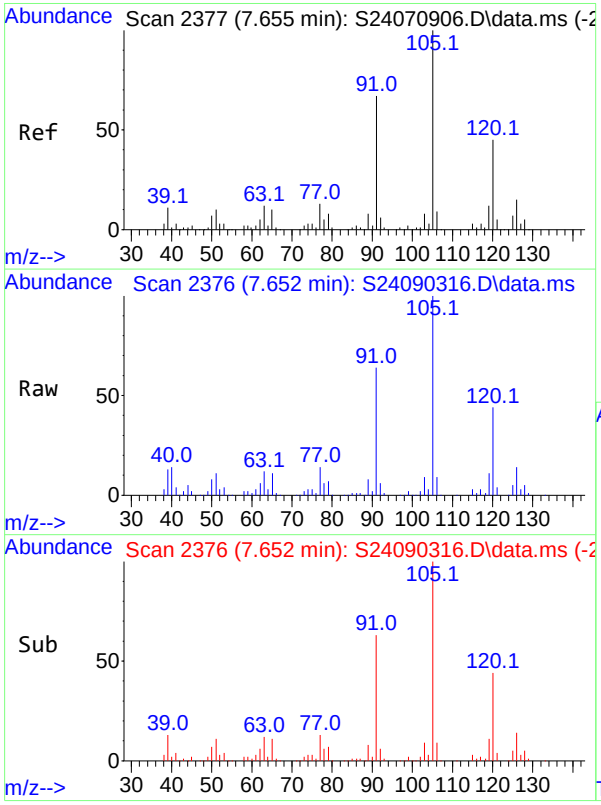


#61
Bromobenzene
Concen: 46.62 ng
RT: 7.432 min Scan# 2307
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:156 Resp: 29472

Ion	Ratio	Lower	Upper
156	100		
77	252.3	173.0	259.4

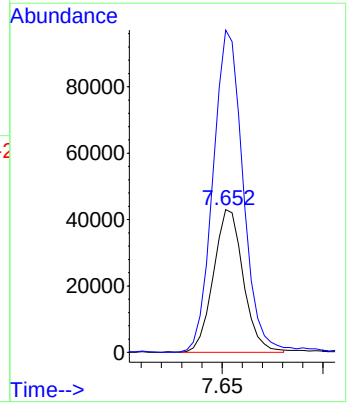


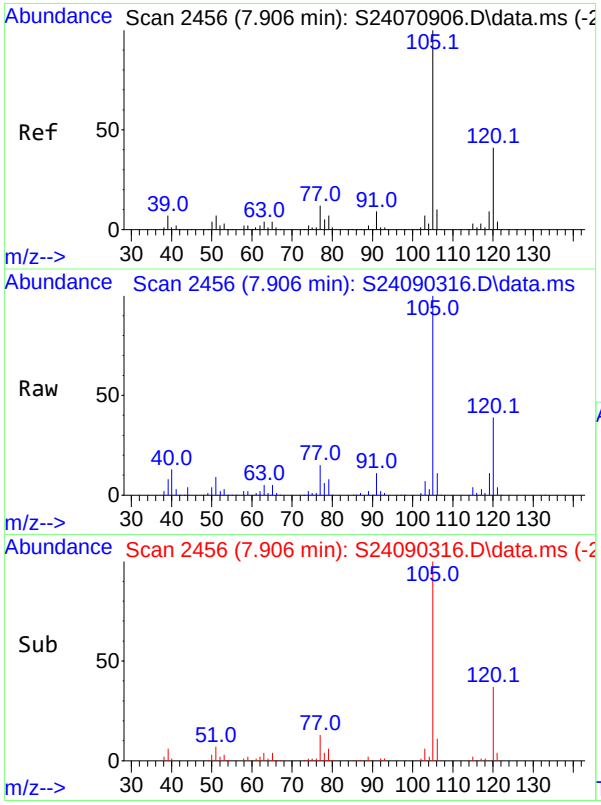


#65
1,3,5-Trimethylbenzene
Concen: 44.22 ng
RT: 7.652 min Scan# 2376
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:120 Resp: 44331

Ion	Ratio	Lower	Upper
120	100		
105	226.1	175.8	263.8

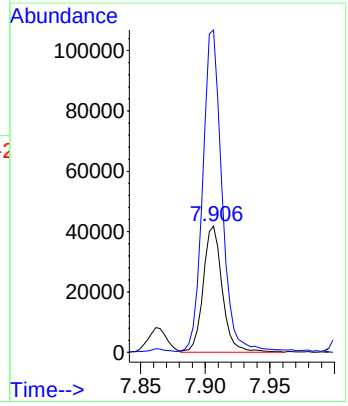


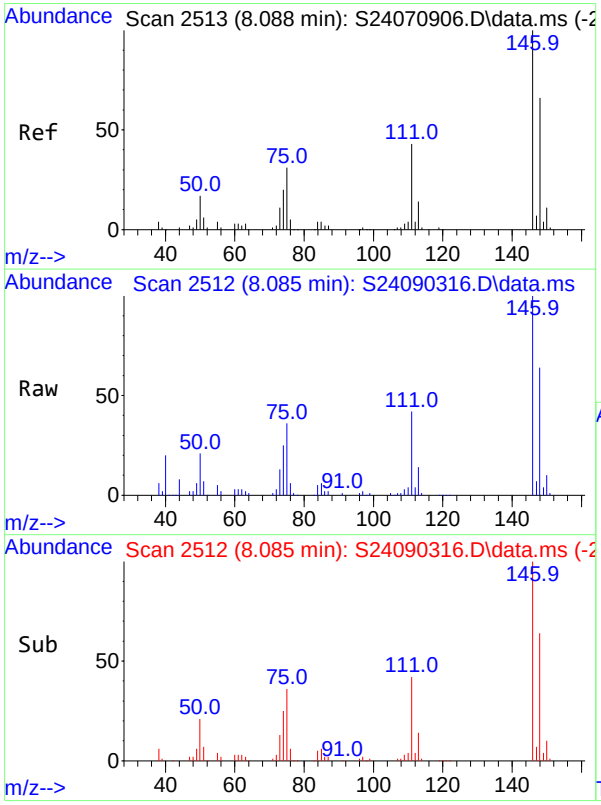


#68
1,2,4-Trimethylbenzene
Concen: 45.45 ng
RT: 7.906 min Scan# 2456
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:120 Resp: 42914

Ion	Ratio	Lower	Upper
120	100		
105	255.9	191.6	287.4

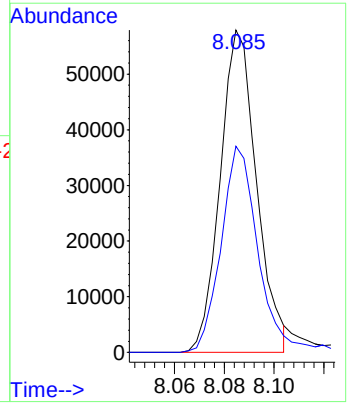


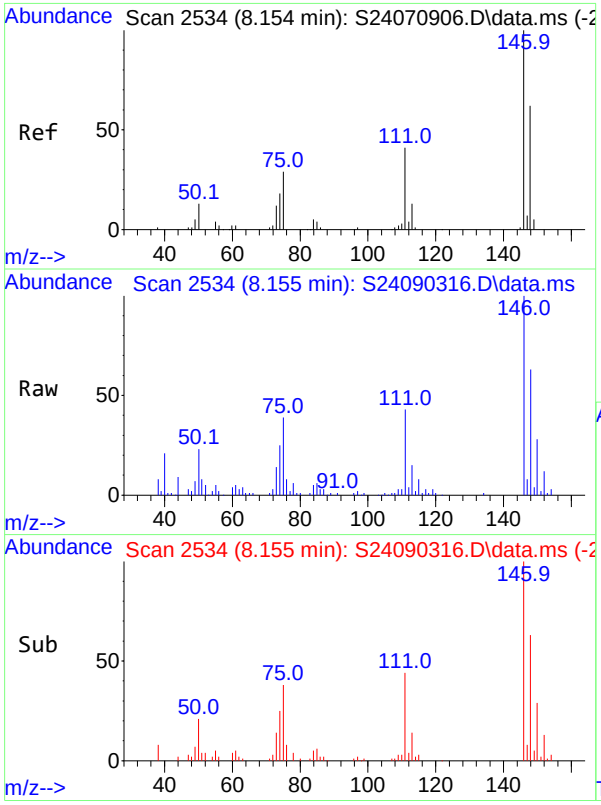


#70
1,3-Dichlorobenzene
Concen: 51.62 ng
RT: 8.085 min Scan# 2512
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:146 Resp: 58749

Ion	Ratio	Lower	Upper
146	100		
148	62.8	51.4	77.0

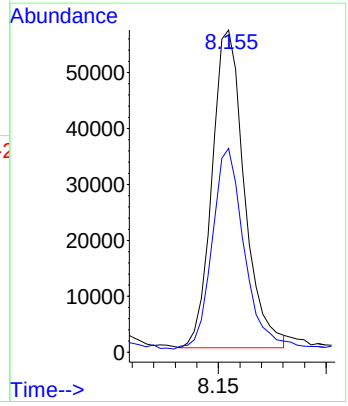


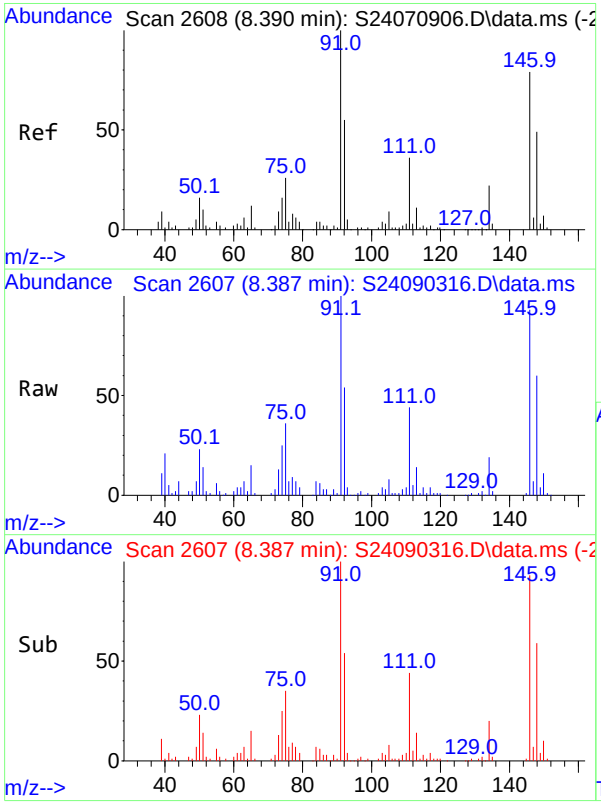


#72
1,4-Dichlorobenzene
Concen: 48.32 ng
RT: 8.155 min Scan# 2534
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:146 Resp: 59087

Ion	Ratio	Lower	Upper
146	100		
148	62.3	51.2	76.8

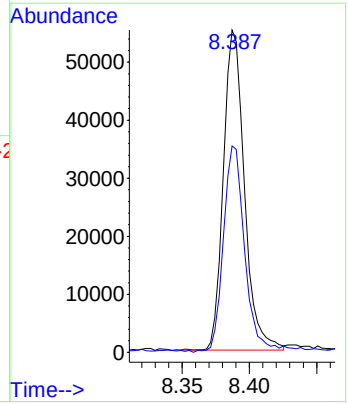


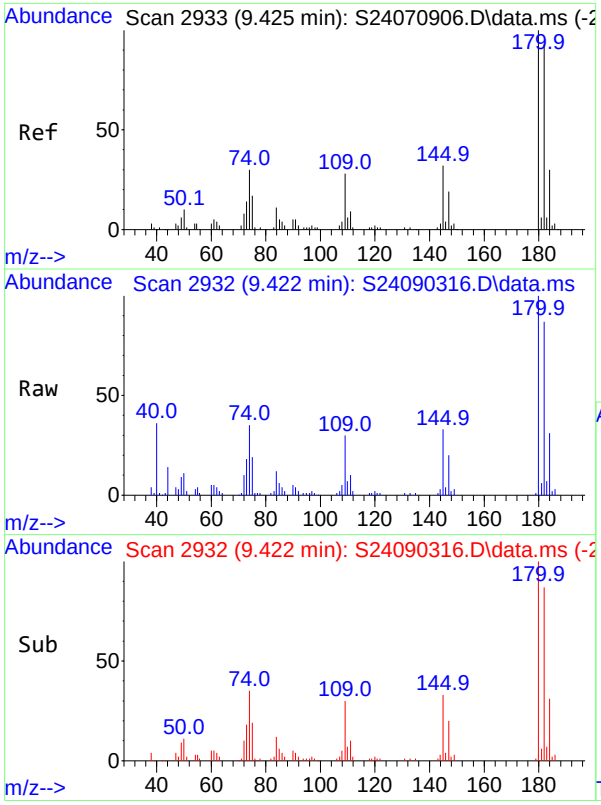


#73
1,2-Dichlorobenzene
Concen: 48.86 ng
RT: 8.387 min Scan# 2607
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:146 Resp: 59977

Ion	Ratio	Lower	Upper
146	100		
148	65.6	50.6	75.8

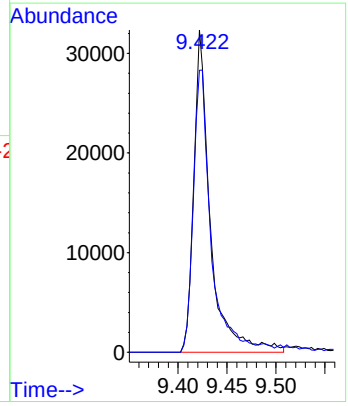


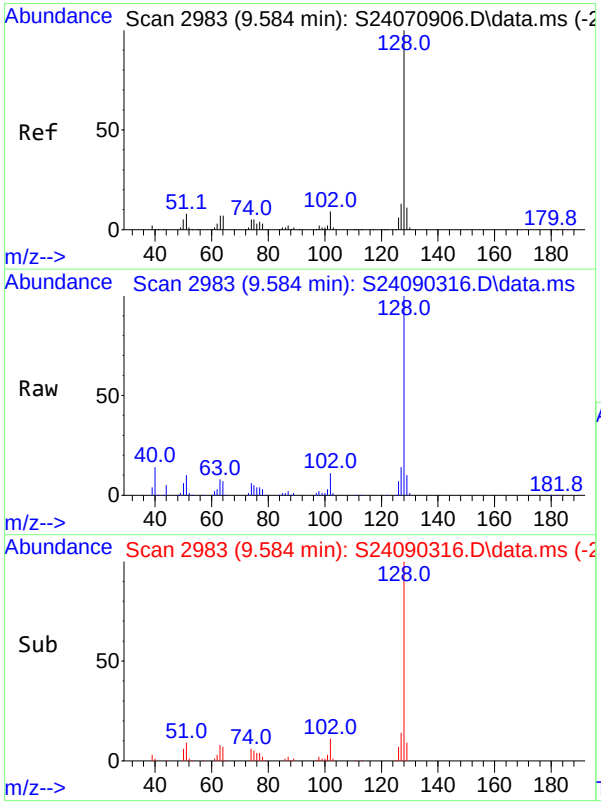


#79
1,2,4-Trichlorobenzene
Concen: 43.97 ng
RT: 9.422 min Scan# 2932
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:180 Resp: 37956

Ion	Ratio	Lower	Upper
180	100		
182	95.3	75.9	113.9

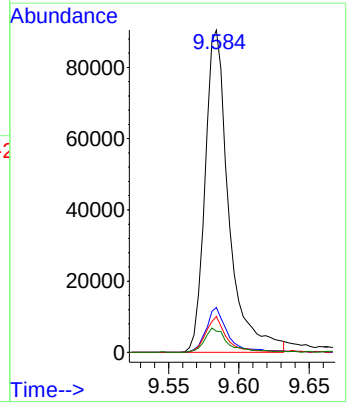


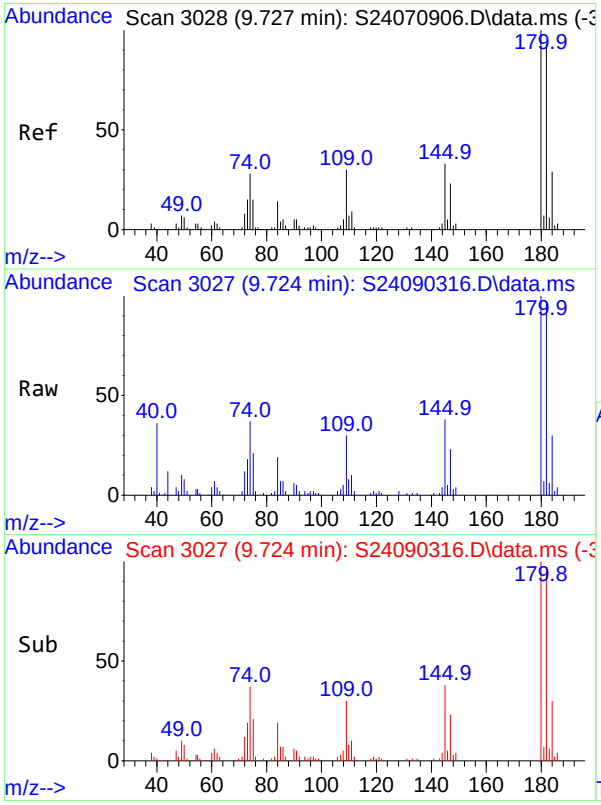


#80
Naphthalene
Concen: 40.84 ng
RT: 9.584 min Scan# 2983
Delta R.T. 0.000 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:128 Resp: 106583

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.1	15.1
102	9.8	7.4	11.0
64	7.5	5.5	8.3

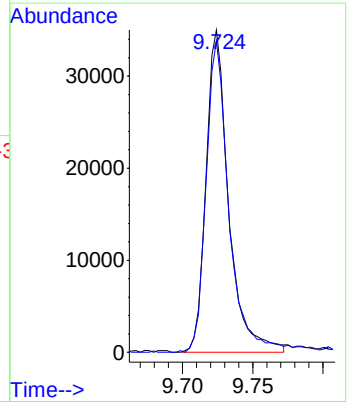


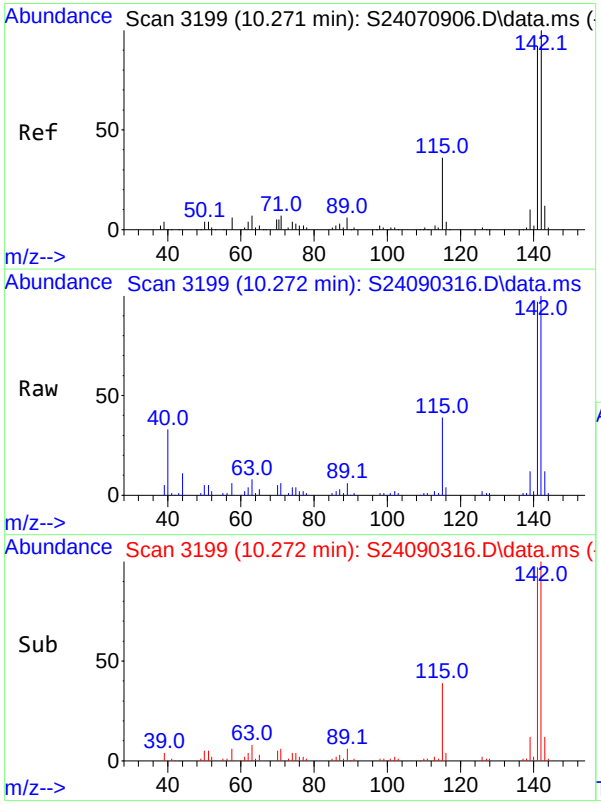


#82
1,2,3-Trichlorobenzene
Concen: 41.83 ng
RT: 9.724 min Scan# 3027
Delta R.T. -0.003 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:180 Resp: 39092

Ion	Ratio	Lower	Upper
180	100		
182	97.0	74.5	111.7

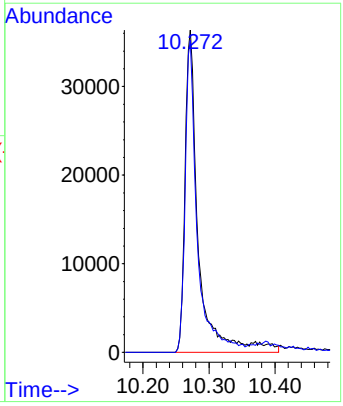




#84
2-Methylnaphthalene
Concen: 36.00 ng
RT: 10.272 min Scan# 3199
Delta R.T. 0.001 min
Lab File: S24090316.D
Acq: 03 Sep 2024 09:09 pm

Tgt Ion:142 Resp: 51303

Ion	Ratio	Lower	Upper
142	100		
141	93.7	72.1	108.1



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Organics.GCMS

Calibration Summaries

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

BG40008

TO-17 (Passive)

Laboratory: Beacon Environmental

Calibration: BG40008 Instrument: S System

Response Factor Report Chemstation3

Method Path : Z:\msdchem\S_system\
Method File : S_5977_240709 FULL CAL.M
Title : SOURCE AREA VOA ANALYSIS
Last Update : Mon Jul 22 13:55:39 2024
Response Via : Initial Calibration

Calibration Files
2.5 =S24070902.D 5 =S24070903.D 10 =S24070904.D 25 =S24070905.D 50 =S24070906.D 100 =S24070907.D 200 =S24070908.D 500 =S24070909.D
1000=S24070918.D 2000=S24070919.D 5000=S24070920.D 1E5 =S24070921.D

		Compound	2.5	5	10	25	50	100	200	500	1000	2000	5000	1E5	Avg	%RSD
1)	I	Fluorobenzene	----------ISTD----------													
2)	T	Chloroethane	0.082	0.078	0.070	0.052	0.064	0.059	0.059						0.066#	16.32
3)	T	Bromomethane	0.208	0.187	0.172	0.134	0.162	0.157	0.167						0.170	13.83
4)	T	Vinyl Chloride	0.280	0.275	0.260	0.159	0.244	0.228	0.257	0.277	0.255				0.248	15.02
5)	P	Chloromethane		0.118	0.108	0.043	0.082	0.069	0.079						0.083#	32.74
6)	T	Dichlorodifluo...	0.379	0.385	0.330	0.054	0.263	0.188	0.278						0.268	43.61
7)	T	Trichlorofluor...	0.468	0.477	0.487	0.402	0.469	0.449	0.475						0.461	6.19
8)	T	Pentane	0.058	0.076	0.069	0.049	0.066	0.070	0.071						0.066#	13.64
9)	T	1,1-Dichloroet...	0.219	0.202	0.210	0.196	0.201	0.212	0.213	0.253	0.250	0.263	0.274	0.284	0.231	13.50
10)	T	Methylene Chlo...	0.264	0.296	0.275	0.273	0.277	0.276	0.276						0.277	3.43
11)	T	1,1,2-Trichlor...	0.248	0.248	0.267	0.255	0.268	0.266	0.278	0.298	0.288				0.269	6.37
12)	T	Carbon disulfide	0.517	0.460	0.446	0.355	0.424	0.444	0.545						0.456	13.61
13)	T	Acetone		0.273	0.218	0.206	0.197	0.199							0.219	14.42
14)	T	trans-1,2-Dich...	0.402	0.394	0.344	0.375	0.381	0.393	0.394	0.423	0.409	0.438	0.450	0.432	0.403	7.39
15)	T	Methyl-t-butyl...	0.899	0.778	0.769	0.756	0.775	0.779	0.790	0.902	0.825				0.808	6.89
16)	P	1,1-Dichloroet...	0.502	0.503	0.475	0.492	0.492	0.497	0.501	0.529	0.505				0.500	2.89
17)	T	Hexane	0.442	0.417	0.418	0.381	0.400	0.429	0.426						0.416	4.80
18)	T	cis-1,2-Dichlo...	0.298	0.300	0.298	0.287	0.283	0.295	0.298	0.319	0.299	0.317	0.332	0.336	0.305	5.55
19)	T	2-Butanone	0.196	0.171	0.170	0.162	0.164	0.166	0.172						0.171	6.65
20)	T	Bromochloromet...	0.134	0.142	0.133	0.137	0.139	0.139	0.142						0.138	2.45
21)	C	Chloroform	0.513	0.522	0.489	0.505	0.508	0.514	0.516	0.543	0.515	0.540	0.545	0.523	0.519	3.19
22)	T	2,2-Dichloropr...	0.377	0.383	0.361	0.371	0.378	0.400	0.415						0.384	4.70
23)	S	1,2-DCA-d4	0.362	0.351	0.362	0.356	0.356	0.354	0.352	0.390	0.365	0.380	0.390	0.379	0.366	3.97
24)	T	1,2-Dichloroet...	0.429	0.450	0.436	0.448	0.445	0.443	0.446	0.476	0.449				0.447	2.85
25)	T	1,1,1-Trichlor...	0.383	0.395	0.388	0.405	0.418	0.436	0.451	0.493	0.471				0.427	9.09
26)	T	1,1-Dichloropr...	0.379	0.375	0.369	0.375	0.376	0.384	0.391						0.378	1.89
27)	T	Carbon Tetrach...	0.288	0.317	0.311	0.319	0.331	0.360	0.383	0.426	0.418				0.350	14.03
28)	T	Benzene			0.318	0.271	0.269	0.265	0.262	0.290	0.270	0.297	0.273	0.239	0.275	7.80
29)	T	Dibromomethane	0.173	0.173	0.178	0.186	0.186	0.190	0.199						0.184	5.20
30)	C	1,2-Dichloropr...	0.280	0.293	0.276	0.274	0.283	0.282	0.288						0.282	2.34
31)	T	Trichloroethene	0.299	0.283	0.271	0.282	0.287	0.290	0.291	0.314	0.289	0.312	0.325	0.326	0.297	6.03
32)	T	Heptane		0.438	0.366	0.296	0.289	0.296	0.290						0.329	18.49
33)	T	Bromodichlorom...	0.249	0.254	0.250	0.270	0.274	0.292	0.319						0.272	9.38
34)	T	1,4-Dioxane	0.194	0.201	0.203	0.204	0.208	0.204	0.220	0.244	0.219				0.211	7.05
35)	T	cis-1,3-Dichlo...	0.268	0.313	0.302	0.320	0.344	0.366	0.409						0.332	13.95
36)	T	4-Methyl-2-pen...		0.216	0.238	0.258	0.285	0.293	0.330						0.270	15.24
37)	T	trans-1,3-Dich...	0.238	0.248	0.253	0.271	0.290	0.316	0.368						0.283	16.20
38)	T	1,1,2-Trichlor...	0.161	0.153	0.160	0.162	0.168	0.165	0.174	0.186	0.168				0.166	5.62

Method Path : Z:\msdchem\S_system\
Method File : S_5977_240709 FULL CAL.M
Title : SOURCE AREA VOA ANALYSIS

39)	I	Chlorobenzene-d5	----------ISTD----------												
40)	S	Toluene-d8	1.266	1.268	1.270	1.296	1.333	1.345	1.368	1.530	1.429	1.541	1.377	1.011	1.336	10.41
41)	C	Toluene			0.915	0.898	0.907	0.932	0.940	1.054	0.978	1.073	0.921	0.761	0.938	9.25
42)	T	1,3-Dichloropr...	0.644	0.648	0.651	0.660	0.676	0.669	0.683						0.661	2.26
43)	T	Octane	0.289	0.297	0.309	0.304	0.323	0.340	0.346						0.315	6.87
44)	T	2-Hexanone	0.279	0.289	0.327	0.353	0.397	0.410	0.462						0.360	18.67
45)	T	Dibromochlorom...	0.241	0.235	0.224	0.243	0.251	0.275	0.317						0.255	12.32
46)	T	1,2-Dibromoeth...	0.332	0.361	0.346	0.355	0.375	0.385	0.411	0.423	0.401				0.377	8.22
47)	T	Tetrachloroethene	0.338	0.340	0.342	0.344	0.341	0.333	0.337	0.351	0.325	0.345	0.356	0.354	0.342	2.60
48)	T	1,1,1,2-Tetrac...	0.278	0.309	0.291	0.296	0.301	0.319	0.350	0.382	0.361				0.321	11.05
49)	P	Chlorobenzene	1.070	1.053	1.050	1.024	1.028	1.033	1.059	1.167	1.075				1.062	4.08
50)	C	Ethylbenzene	0.458	0.492	0.500	0.510	0.513	0.519	0.548	0.619	0.574	0.633	0.561	0.493	0.535	9.97
51)	T	p & m-Xylene	0.624	0.585	0.556	0.604	0.618	0.656	0.687	0.761	0.703	0.780	0.694	0.593	0.655	10.81
52)	P	Bromoform	0.117	0.134	0.150	0.147	0.158	0.173	0.208						0.155	18.69
53)	T	Nonane	0.470	0.528	0.572	0.609	0.658	0.692	0.720						0.607	14.87
54)	T	Styrene	0.745	0.766	0.824	0.867	0.928	1.012	1.095						0.891	14.48
55)	P	1,1,2,2-Tetrac...	0.549	0.621	0.575	0.623	0.628	0.660	0.714	0.738	0.673				0.642	9.48
56)	T	o-Xylene	0.528	0.550	0.549	0.574	0.604	0.627	0.660	0.722	0.671	0.754	0.673	0.558	0.623	11.87
57)	T	1,2,3-Trichlor...	0.585	0.602	0.584	0.610	0.612	0.622	0.656	0.691	0.628				0.621	5.50
58)	T	Isopropylbenzene	1.427	1.520	1.567	1.615	1.664	1.706	1.824	2.045	1.860				1.692	11.31
59)	S	Bromofluoroben...	0.603	0.348	0.331	0.344	0.369	0.365	0.388	0.446	0.406	0.456	0.456	0.408	0.410	18.28
60)	I	1,4-Dichlorobenzen...	----------ISTD----------													
61)	T	Bromobenzene	0.985	0.881	0.860	0.798	0.802	0.774	0.795						0.842	8.77
62)	T	n-Propylbenzene	3.941	3.924	3.854	3.939	3.973	4.066	4.174						3.981	2.66
63)	T	2-Chlorotoluene	2.765	2.585	2.624	2.491	2.474	2.478	2.483						2.557	4.27
64)	T	4-Chlorotoluene	2.739	2.754	2.773	2.771	2.865	2.845	2.970						2.817	2.93
65)	T	1,3,5-Trimethy...	1.411	1.226	1.306	1.242	1.280	1.280	1.320	1.531	1.425				1.336	7.48
66)	T	Decane	0.983	1.117	1.242	1.437	1.545	1.582	1.625						1.362	18.35
67)	T	tert-Butylbenzene	2.856	2.703	2.574	2.501	2.454	2.446	2.508						2.577	5.85
68)	T	1,2,4-Trimethy...	1.213	1.165	1.256	1.222	1.243	1.235	1.277	1.403	1.307				1.258	5.37
69)	T	sec-Butylbenzene	3.325	3.298	3.571	3.356	3.317	3.319	3.416						3.372	2.85
70)	T	1,3-Dichlorobe...	1.414	1.423	1.407	1.478	1.505	1.535	1.551	1.731	1.600				1.516	6.91
71)	T	p-Isopropyl to...	2.864	2.985	2.954	3.015	3.070	3.089	3.215						3.028	3.70
72)	T	1,4-Dichlorobe...	1.867	1.643	1.533	1.494	1.532	1.563	1.612	1.765	1.651				1.629	7.43
73)	T	1,2-Dichlorobe...	1.858	1.713	1.641	1.586	1.561	1.531	1.580	1.689	1.559				1.635	6.36
74)	T	n-Butylbenzene	2.276	2.386	2.435	2.761	2.902	3.007	3.188						2.708	12.83
75)	T	Undecane	0.787	0.919	1.007	1.270	1.445	1.554	1.646						1.233	27.10
76)	T	1,2-Dibromo-3-...	0.265	0.216	0.218	0.251	0.301	0.332	0.409						0.285	24.19
77)	T	Hexachloroethane	0.226	0.265	0.264	0.247	0.239	0.249	0.285						0.254	7.64
78)	T	Dodecane	0.830	0.903	0.946	1.120	1.286	1.435	1.587						1.158	24.82
79)	T	1,2,4-Trichlor...	1.039	1.224	1.141	1.106	1.111	1.118	1.152	1.273	1.185				1.150	6.04
80)	T	Naphthalene	2.696	2.749	2.842	3.152	3.451	3.657	3.984	4.528	4.231				3.477	19.33
81)	T	Hexachlorobuta...	0.768	0.750	0.654	0.718	0.697	0.668	0.681						0.705	6.00
82)	T	1,2,3-Trichlor...	1.173	1.177	1.224	1.161	1.159	1.134	1.179	1.297	1.236				1.193	4.21
83)	T	Tridecane	0.706	0.776	0.798	1.013	1.253	1.484	1.691						1.103	34.70
84)	T	2-Methylnaphth...	1.327	1.247	1.324	1.510	1.832	1.997	2.423	2.779	2.646				1.898	31.47
85)	T	Tetradecane	0.632	0.671	0.800	0.928	1.231	1.449	1.700						1.059	38.75

Method Path : Z:\msdchem\S_system\
Method File : S_5977_240709 FULL CAL.M
Title : SOURCE AREA VOA ANALYSIS

86)	T	Pentadecane	1.046	0.666	0.727	0.807	1.016	1.193	1.552			1.001	30.73
87)	T	Biphenyl	2.780	1.966	1.981	2.180	2.408	2.587	2.980			2.412	16.29
88)	T	Acenaphthylene	1.601	1.676	1.657	1.840	2.155	2.429	3.061			2.060	25.96
89)	T	Acenaphthene	1.095	1.229	1.284	1.547	1.794	1.968	2.313			1.604	27.60
90)	T	Dibenzofuran	3.117	1.705	1.788	2.006	2.223	2.364	2.961			2.309	23.81
91)	T	Fluorene	2.263	0.910	1.002	1.080	1.245	1.421	1.990			1.416	36.65
92)	T	Carbazole		0.021	0.379	0.434	0.485	0.567	1.095			0.497	70.09
93)	H	TPH c4-c9	2.971	3.420	3.819	3.935	4.092	4.149	4.157	4.810	4.533	3.987	13.81
94)	h	TPH C5-C8	2.695	3.308	4.124	5.139	5.721	6.089	6.368			4.778	29.84
95)	H	TPH c10-c15	1.047	0.892	0.778	0.753	0.796	0.841	0.930			0.862 E1	11.93
96)	h	TPH C9-C15	1.286	1.127	1.034	1.029	1.085	1.137	1.017			1.102 E1	8.55

(#) = Out of Range

GC/MS QA-QC Check Report

Tune File : Z:\GCMS\data\24\07\S240709 Cal\S24070901.D
Tune Time : 09 Jul 2024 11:45 am

Daily Calibration File : Z:\GCMS\data\24\07\S240709 Cal\S24070906.D

					243055	170073	83991	
File	Sample	Surrogate Recovery %			Internal Standard Responses			
S24070902.D								
	SEQ-CAL1	0*	0*	0*	234073	156996	54813	
S24070903.D								
	SEQ-CAL2	5*	5*	3*	240997	164278	64233	
S24070904.D								
	SEQ-CAL3	10*	10*	7*	236631	162000	69102	
S24070905.D								
	SEQ-CAL4	25*	26*	20*	247790	174328	81969	
S24070906.D								
	SEQ-CAL5	50*	52*	45*	243055	170073	83991	
S24070907.D								
	SEQ-CAL6	99	105	91	235366	163589	84037	
S24070908.D								
	SEQ-CAL7	197*	211*	197*	247921	174901	94177	
S24070909.D								
	SEQ-CAL8	548*	586*	568*	223295	160956	86194	
S24070918.D								
	SEQ-CAL9	1013*	1071*	1018*	216854	151823	80456	
S24070919.D								
	SEQ-CALA	2106*	2292*	2282*	219684	155617	73291	
S24070920.D								
	SEQ-CALB	5377*	5045*	5620*	215701	153768	77372	
S24070921.D								
	SEQ-CALC	10381*	7399*	9958*	215280	166353	81403	
S24070924.D								
	SEQ-ICV1	49*	53*	44*	217802	132138	57604	
S24070925.D								
	SEQ-ICB1	99	102	78	222879	156056	53000	

(fails) - fails 24hr time check   * - fails criteria

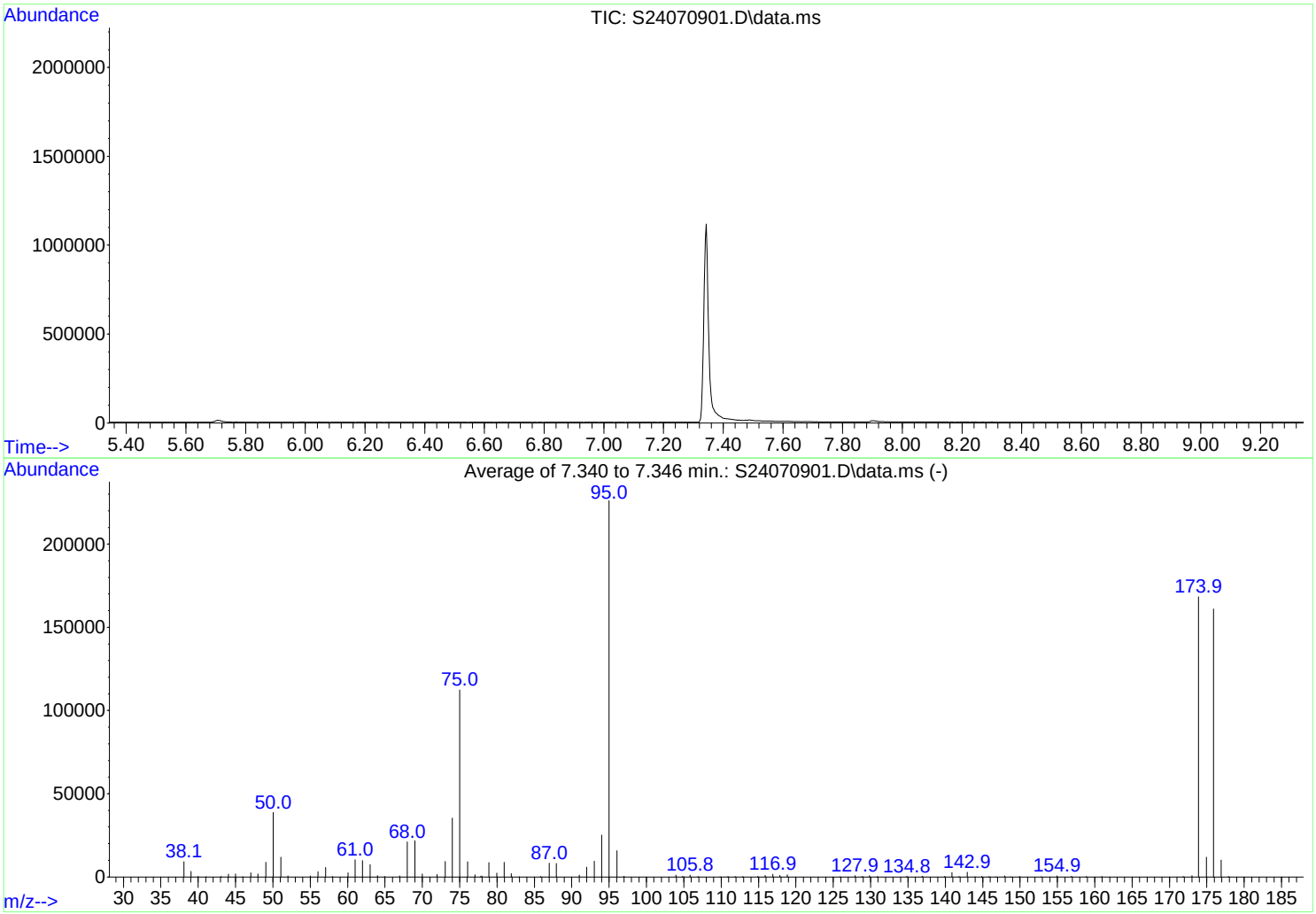
Created: Wed Jul 10 11:10:58 2024 Chemstation3

BFB

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070901.D
Acq On : 09 Jul 2024 11:45 am
Operator : KAI
Sample : SEQ-TUN1
Misc :
ALS Vial : 1 Sample Multiplier: 1

Integration File: ALI9.P

Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Title : SOURCE AREA VOA ANALYSIS
Last Update : Wed Jul 10 11:08:46 2024



AutoFind: Scans 2278, 2279, 2280; Background Corrected with Scan 2269

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.1	38747	PASS
75	95	30	60	49.7	112285	PASS
95	95	100	100	100.0	226112	PASS
96	95	5	9	7.0	15743	PASS
173	174	0.00	2	0.5	823	PASS
174	95	50	200	74.5	168363	PASS
175	174	5	9	7.0	11768	PASS
176	174	95	102	95.7	161088	PASS
177	176	5	9	6.3	10226	PASS

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070902.D
Acq On : 09 Jul 2024 12:15 pm
Operator : KAI
Sample : SEQ-CAL1
Misc : 1, dual bed, 2.5ng
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 11:11:24 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 11:08:46 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.984	96	234073	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	156996	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	54813	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.749	65	2118	2.47	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 2.47%#				
40) Toluene-d8	5.271	98	4970	2.37	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 2.37%#				
59) Bromofluorobenzene	7.346	174	2368	3.68	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 3.68%#				
Target Compounds							Qvalue
2) Chloroethane	1.829	66	482	3.46	ng	#	75
3) Bromomethane	1.769	94	1217	2.93	ng		89
4) Vinyl Chloride	1.619	62	1636	2.81	ng	#	79
5) Chloromethane	1.578	52	815	4.20	ng	#	67
6) Dichlorodifluoromethan...	1.498	85	2215	3.11	ng	#	69
7) Trichlorofluoromethane...	1.953	101	2740	2.54	ng		95
8) Pentane	1.998	57	341	2.07	ng		94
9) 1,1-Dichloroethene	2.205	96	1280	2.36	ng		93
10) Methylene Chloride	2.456	84	1543	2.38	ng		95
11) 1,1,2-Trichlorotrifluo...	2.211	101	1454	2.31	ng		89
12) Carbon disulfide	2.329	76	3028	2.84	ng		98
13) Acetone	2.215	58	4560	8.91	ng	#	73
14) trans-1,2-Dichloroethene	2.609	61	2352	2.49	ng		99
15) Methyl-t-butyl ether	2.606	73	5259	2.78	ng		97
16) 1,1-Dichloroethane	2.858	63	2939	2.51	ng	#	97
17) Hexane	2.772	57	2585	2.65	ng		95
18) cis-1,2-Dichloroethene	2.612	96	1560	2.46	ng		94
19) 2-Butanone	3.189	72	1146	2.87	ng	#	39
20) Bromochloromethane	3.351	128	787	2.44	ng	#	87
21) Chloroform	3.418	83	3000	2.47	ng	#	96
22) 2,2-Dichloropropane	3.205	77	2207	2.46	ng	#	89
24) 1,2-Dichloroethane	3.803	62	2513	2.40	ng	#	79
25) 1,1,1-Trichloroethane	3.529	97	2239	2.24	ng		97
26) 1,1-Dichloropropene	3.641	75	2216	2.50	ng		96
27) Carbon Tetrachloride	3.644	117	1683	2.05	ng		92
28) Benzene	3.778	77	2630	4.08	ng		98
29) Dibromomethane	4.519	93	1011	2.35	ng	#	25
30) 1,2-Dichloropropane	4.452	63	1639	2.45	ng		97
31) Trichloroethene	4.258	130	1749	2.51	ng		90
32) Heptane	3.984	71	3699	5.42	ng	#	83
33) Bromodichloromethane	4.666	83	1457	2.28	ng		93
34) 1,4-Dioxane	4.507	88	1136	2.17	ng		92
35) cis-1,3-Dichloropropene	5.032	75	1566	2.02	ng		99
36) 4-Methyl-2-pentanone (...	5.894	58	1097	1.46	ng		100
37) trans-1,3-Dichloropropene	5.544	75	1390	1.68	ng	#	79
38) 1,1,2-Trichloroethane	5.697	99	944	2.42	ng		94
41) Toluene	5.331	92	3945	2.68	ng		93
42) 1,3-Dichloropropane	5.837	76	2527	2.43	ng	#	85
43) Octane	5.481	57	1133	2.29	ng		97

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070902.D
Acq On : 09 Jul 2024 12:15 pm
Operator : KAI
Sample : SEQ-CAL1
Misc : 1, dual bed, 2.5ng
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 11:11:24 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 11:08:46 2024
Response via : Initial Calibration

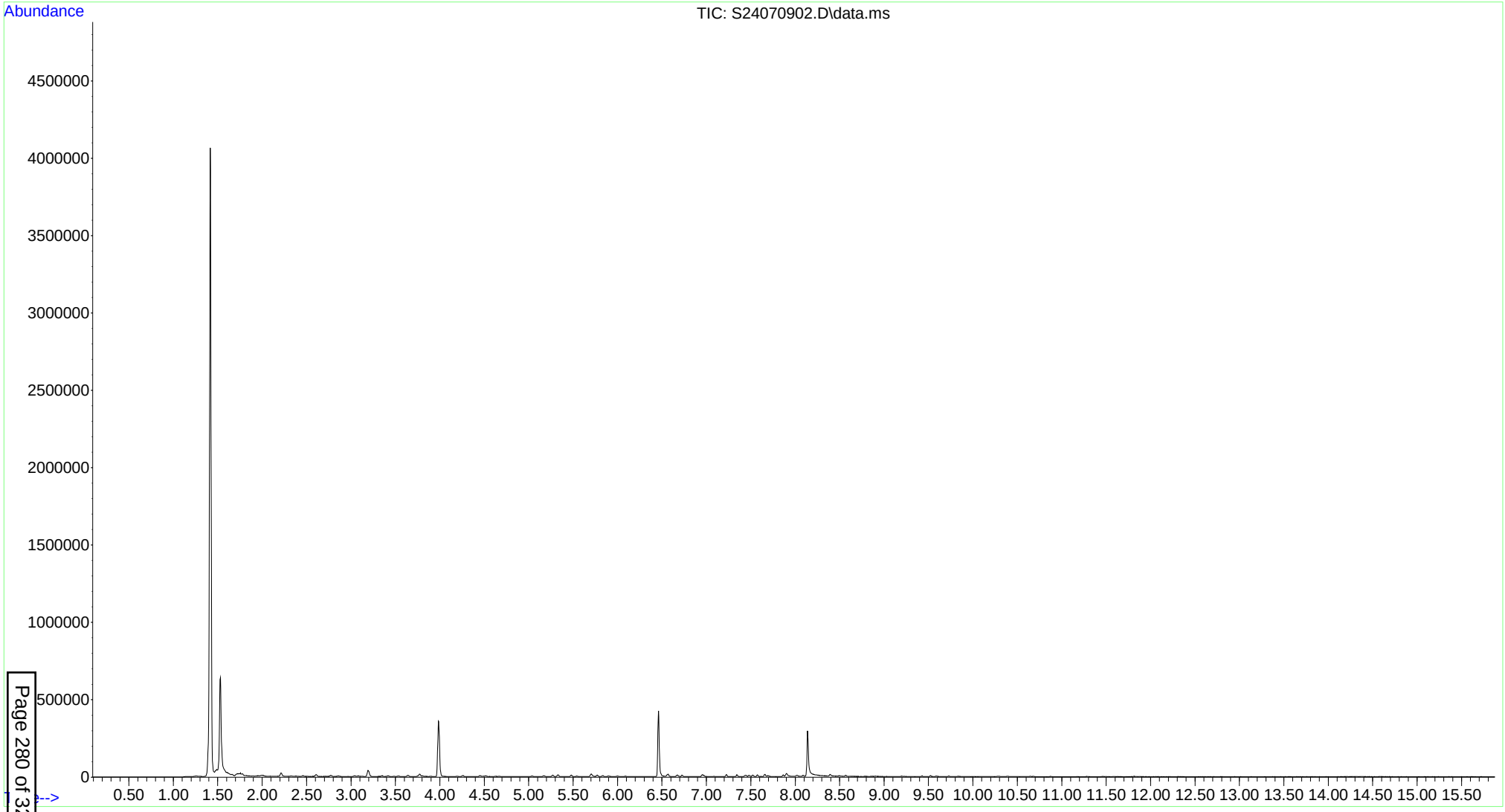
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2-Hexanone	5.894	58	1097	1.94	ng	#	46
45) Dibromochloromethane	6.006	129	944	2.36	ng		85
46) 1,2-Dibromoethane (EDB)	6.089	107	1305	2.21	ng		97
47) Tetrachloroethene	5.773	131	1328	2.47	ng		88
48) 1,1,1,2-Tetrachloroethane	6.557	131	1092	2.17	ng		90
49) Chlorobenzene	6.487	112	4200	2.52	ng		94
50) Ethylbenzene	6.566	106	1798	2.14	ng	#	87
51) p & m-Xylene	6.671	106	2451	2.38	ng		93
52) Bromoform	7.085	173	461	1.89	ng		94
53) Nonane	6.725	57	1843	1.93	ng		100
54) Styrene	6.974	104	2924	2.09	ng	#	84
55) 1,1,2,2-Tetrachloroethane	7.448	83	2156	2.14	ng	#	96
56) o-Xylene	6.955	106	2074	2.12	ng		97
57) 1,2,3-Trichloropropane	7.480	75	2297	2.36	ng		88
58) Isopropylbenzene	7.225	105	5600	2.11	ng		99
61) Bromobenzene	7.435	156	1350	2.92	ng		86
62) n-Propylbenzene	7.524	91	5400	2.47	ng		98
63) 2-Chlorotoluene	7.572	91	3789	2.70	ng		94
64) 4-Chlorotoluene	7.664	91	3754	2.43	ng		99
65) 1,3,5-Trimethylbenzene	7.652	120	1933	2.64	ng		93
66) Decane	7.693	57	1347	1.53	ng		88
67) tert-Butylbenzene	7.865	119	3913	2.77	ng		93
68) 1,2,4-Trimethylbenzene	7.906	120	1662	2.41	ng	#	1
69) sec-Butylbenzene	8.018	105	4556	2.47	ng		97
70) 1,3-Dichlorobenzene	8.088	146	1937	2.33	ng		95
71) p-Isopropyl toluene	8.129	119	3924	2.36	ng	#	87
72) 1,4-Dichlorobenzene	8.155	146	2558	2.87	ng		95
73) 1,2-Dichlorobenzene	8.393	146	2546	2.84	ng		91
74) n-Butylbenzene	8.400	91	3119	2.10	ng	#	91
75) Undecane	8.489	57	1078	1.22	ng		95
76) 1,2-Dibromo-3-chloropr...	8.903	157	363	1.71	ng	#	39
77) Hexachloroethane	8.572	201	310	2.23	ng	#	79
78) Dodecane	9.202	57	1138	1.79	ng	#	77
79) 1,2,4-Trichlorobenzene	9.428	180	1424	2.26	ng	#	78
80) Naphthalene	9.587	128	3694	1.58	ng	#	88
81) Hexachlorobutadiene	9.523	225	1052	2.72	ng		94
82) 1,2,3-Trichlorobenzene	9.734	180	1607	2.36	ng		92
83) Tridecane	9.829	57	967	1.09	ng	#	67
84) 2-Methylnaphthalene	10.278	142	1818	1.75	ng		85
85) Tetradecane	10.383	57	866	0.98	ng		99
86) Pentadecane	10.873	57	1434	1.81	ng	#	80
87) Biphenyl	10.679	154	3809	3.17	ng	#	41
88) Acenaphthylene	11.176	152	2194	2.21	ng	#	61
89) Acenaphthene	11.281	153	1501	1.72	ng	#	5
90) Dibenzofuran	11.456	168	4271	4.17	ng	#	39
91) Fluorene	11.815	166	3101	5.98	ng	#	4
93) TPH c4-c9	5.050	TIC	521094m	209.83	ng		
94) TPH C5-C8	5.000	TIC	399872m	180.05	ng		
95) TPH c10-c15	10.050	TIC	831999m	168.18	ng		
96) TPH C9-C15	10.000	TIC	1022230m	169.21	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070902.D
Acq On : 09 Jul 2024 12:15 pm
Operator : KAI
Sample : SEQ-CAL1
Misc : 1, dual bed, 2.5ng
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 10 11:11:24 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 11:08:46 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070903.D
Acq On : 09 Jul 2024 12:46 pm
Operator : KAI
Sample : SEQ-CAL2
Misc : 1, dual bed, 5ng
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 10 10:19:21 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:20 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.988	96	240997	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	164278	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.142	152	64233	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.749	65	4234	4.85	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 4.85%#				
40) Toluene-d8	5.270	98	10414	5.01	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 5.01%#				
59) Bromofluorobenzene	7.346	174	2855	2.88	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 2.88%#				
Target Compounds							Qvalue
2) Chloroethane	1.823	66	938	4.73	ng	#	79
3) Bromomethane	1.775	94	2420	4.83	ng		98
4) Vinyl Chloride	1.616	62	3309	4.91	ng	#	81
6) Dichlorodifluoromethan...	1.498	85	4644	5.09	ng		97
7) Trichlorofluoromethane...	1.957	101	5744	5.09	ng		97
8) Pentane	1.992	57	913	6.50	ng		86
9) 1,1-Dichloroethene	2.205	96	2432	4.61	ng		92
10) Methylene Chloride	2.460	84	3562	5.61	ng		98
11) 1,1,2-Trichlorotrifluo...	2.205	101	2991	4.99	ng		99
12) Carbon disulfide	2.326	76	5542	4.44	ng		98
14) trans-1,2-Dichloroethene	2.612	61	4743	4.90	ng		98
15) Methyl-t-butyl ether	2.603	73	9372	4.33	ng		100
16) 1,1-Dichloroethane	2.857	63	6064	5.01	ng		99
17) Hexane	2.772	57	5027	4.72	ng		98
18) cis-1,2-Dichloroethene	2.616	96	3182	4.95	ng		95
19) 2-Butanone	3.189	72	2056	4.36	ng	#	39
20) Bromochloromethane	3.348	128	1707	5.27	ng	#	97
21) Chloroform	3.418	83	6291	5.09	ng		99
22) 2,2-Dichloropropane	3.204	77	4612	5.07	ng		97
24) 1,2-Dichloroethane	3.806	62	5427	5.24	ng	#	71
25) 1,1,1-Trichloroethane	3.536	97	4765	5.17	ng		98
26) 1,1-Dichloropropene	3.644	75	4513	4.95	ng		99
27) Carbon Tetrachloride	3.641	117	3817	5.51	ng		97
29) Dibromomethane	4.516	93	2089	5.02	ng	#	84
30) 1,2-Dichloropropane	4.456	63	3527	5.23	ng		97
31) Trichloroethene	4.258	130	3405	4.73	ng		94
33) Bromodichloromethane	4.666	83	3058	5.10	ng		93
34) 1,4-Dioxane	4.510	88	2419	5.17	ng		85
35) cis-1,3-Dichloropropene	5.038	75	3771	5.85	ng		99
37) trans-1,3-Dichloropropene	5.544	75	2990	5.22	ng		100
38) 1,1,2-Trichloroethane	5.700	99	1844	4.74	ng		88
42) 1,3-Dichloropropane	5.831	76	5319	5.03	ng		91
43) Octane	5.477	57	2438	5.14	ng		97
44) 2-Hexanone	5.898	58	2371	5.16	ng	#	46
45) Dibromochloromethane	6.006	129	1928	4.88	ng		97
46) 1,2-Dibromoethane (EDB)	6.092	107	2963	5.42	ng		96
47) Tetrachloroethene	5.773	131	2789	5.02	ng		93
48) 1,1,1,2-Tetrachloroethane	6.553	131	2540	5.56	ng		91
49) Chlorobenzene	6.483	112	8653	4.92	ng		98

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070903.D
Acq On : 09 Jul 2024 12:46 pm
Operator : KAI
Sample : SEQ-CAL2
Misc : 1, dual bed, 5ng
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 10 10:19:21 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:20 2024
Response via : Initial Calibration

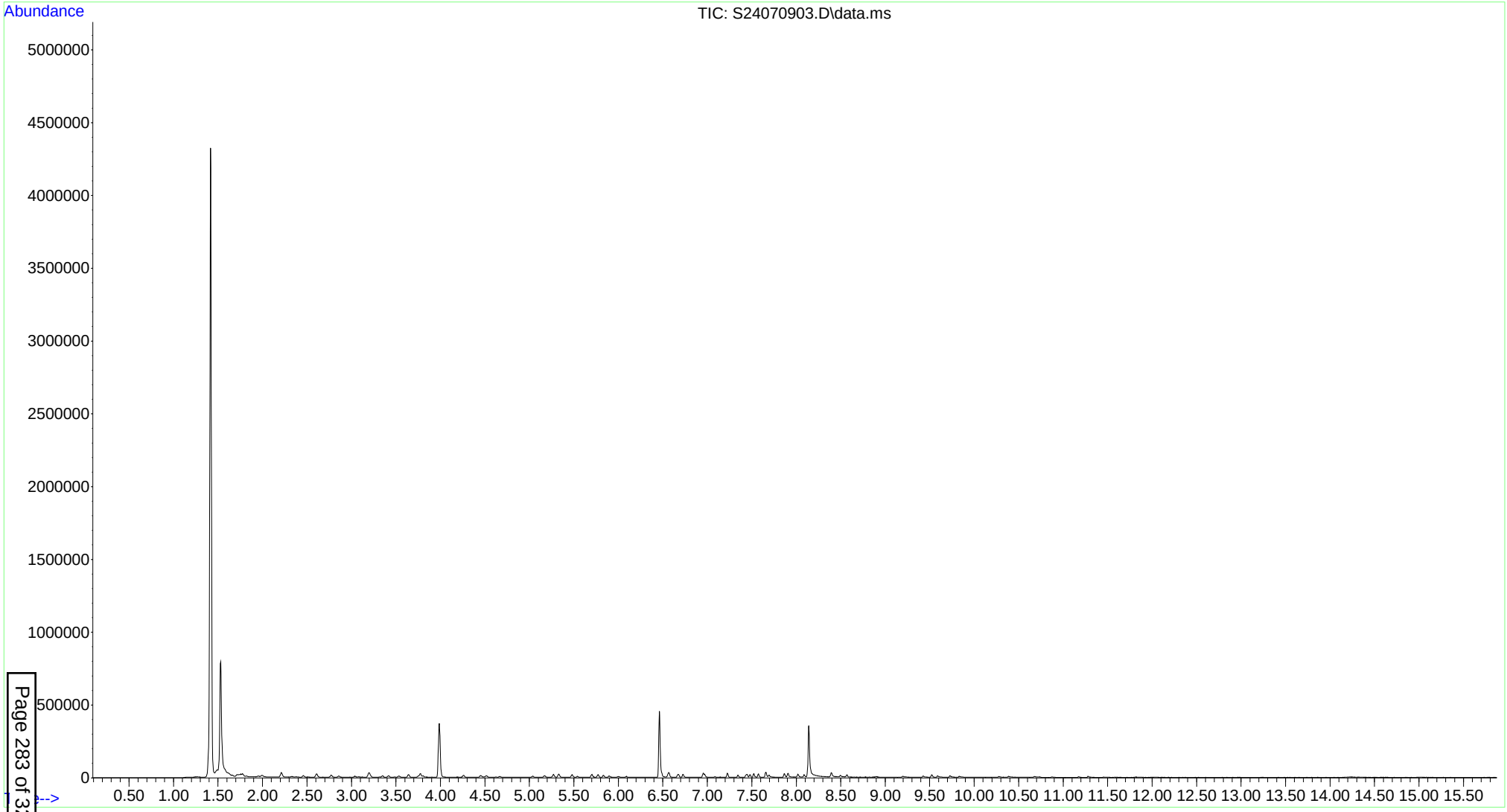
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) Ethylbenzene	6.569	106	4039	5.37	ng		98
51) p & m-Xylene	6.678	106	4807	4.69	ng		97
52) Bromoform	7.088	173	1102	5.71	ng		92
53) Nonane	6.725	57	4340	5.63	ng		96
54) Styrene	6.970	104	6289	5.14	ng		96
55) 1,1,2,2-Tetrachloroethane	7.451	83	5104	5.66	ng	#	93
56) o-Xylene	6.951	106	4514	5.20	ng		96
57) 1,2,3-Trichloropropane	7.480	75	4941	5.14	ng	#	85
58) Isopropylbenzene	7.225	105	12489	5.33	ng		98
61) Bromobenzene	7.435	156	2829	4.47	ng		88
62) n-Propylbenzene	7.521	91	12602	4.98	ng		99
63) 2-Chlorotoluene	7.572	91	8301	4.67	ng		95
64) 4-Chlorotoluene	7.661	91	8844	5.03	ng		99
65) 1,3,5-Trimethylbenzene	7.655	120	3937	4.35	ng		95
66) Decane	7.693	57	3589	5.68	ng		95
67) tert-Butylbenzene	7.865	119	8681	4.73	ng		97
68) 1,2,4-Trimethylbenzene	7.909	120	3741	4.80	ng	#	38
69) sec-Butylbenzene	8.018	105	10592	4.96	ng		95
70) 1,3-Dichlorobenzene	8.088	146	4569	5.03	ng		100
71) p-Isopropyl toluene	8.126	119	9588	5.21	ng	#	93
72) 1,4-Dichlorobenzene	8.158	146	5277	4.40	ng		99
73) 1,2-Dichlorobenzene	8.393	146	5503	4.61	ng		94
74) n-Butylbenzene	8.397	91	7662	5.24	ng		97
75) Undecane	8.498	57	2951	5.84	ng		100
76) 1,2-Dibromo-3-chloropr...	8.903	157	695	4.08	ng		99
77) Hexachloroethane	8.568	201	851	5.86	ng		86
78) Dodecane	9.199	57	2900	5.44	ng		98
79) 1,2,4-Trichlorobenzene	9.428	180	3930	5.89	ng		91
80) Naphthalene	9.587	128	8830	5.10	ng	#	94
81) Hexachlorobutadiene	9.520	225	2409	4.89	ng		91
82) 1,2,3-Trichlorobenzene	9.730	180	3780	5.02	ng		97
83) Tridecane	9.832	57	2493	5.50	ng		96
84) 2-Methylnaphthalene	10.275	142	4006	4.70	ng		99
85) Tetradecane	10.386	57	2155	5.31	ng		94
86) Pentadecane	10.870	57	2140	3.18	ng		89
93) TPH c4-c9	5.050	TIC	966570m	506.52	ng		
94) TPH C5-C8	5.000	TIC	594857m	317.36	ng		
95) TPH c10-c15	10.050	TIC	1089114m	161.97	ng		
96) TPH C9-C15	10.000	TIC	1375407m	166.49	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070903.D
Acq On : 09 Jul 2024 12:46 pm
Operator : KAI
Sample : SEQ-CAL2
Misc : 1, dual bed, 5ng
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 10 10:19:21 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:20 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070904.D
Acq On : 09 Jul 2024 01:16 pm
Operator : KAI
Sample : SEQ-CAL3
Misc : 1, dual bed, 10ng
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 10 10:19:30 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:29 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.988	96	236631	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	162000	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.142	152	69102	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.752	65	8555	10.14	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 10.14%#				
40) Toluene-d8	5.270	98	20573	10.02	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 10.02%#				
59) Bromofluorobenzene	7.343	174	5355	6.95	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 6.95%#				
Target Compounds							Qvalue
2) Chloroethane	1.826	66	1664	8.93	ng		99
3) Bromomethane	1.772	94	4330	9.05	ng		98
4) Vinyl Chloride	1.619	62	6157	9.39	ng	#	91
5) Chloromethane	1.581	52	2565	9.22	ng		97
6) Dichlorodifluoromethan...	1.495	85	7814	8.65	ng		97
7) Trichlorofluoromethane...	1.953	101	11518	10.30	ng		99
8) Pentane	1.995	57	1634	9.55	ng		97
9) 1,1-Dichloroethene	2.211	96	4975	10.00	ng		97
10) Methylene Chloride	2.459	84	6516	9.85	ng		98
11) 1,1,2-Trichlorotrifluo...	2.208	101	6317	10.75	ng		99
12) Carbon disulfide	2.332	76	10543	9.12	ng		100
14) trans-1,2-Dichloroethene	2.615	61	8146	8.65	ng		98
15) Methyl-t-butyl ether	2.606	73	18197	9.17	ng		98
16) 1,1-Dichloroethane	2.861	63	11240	9.45	ng		100
17) Hexane	2.771	57	9880	9.72	ng		97
18) cis-1,2-Dichloroethene	2.612	96	5462	8.70	ng		97
19) 2-Butanone	3.185	72	4030	9.69	ng	#	75
20) Bromochloromethane	3.351	128	3151	9.64	ng	#	93
21) Chloroform	3.418	83	11576	9.46	ng		99
22) 2,2-Dichloropropane	3.211	77	8549	9.51	ng		99
24) 1,2-Dichloroethane	3.803	62	10308	9.90	ng	#	86
25) 1,1,1-Trichloroethane	3.539	97	9179	9.97	ng		98
26) 1,1-Dichloropropene	3.644	75	8741	9.81	ng		99
27) Carbon Tetrachloride	3.637	117	7351	10.28	ng		99
29) Dibromomethane	4.519	93	4218	10.30	ng	#	89
30) 1,2-Dichloropropane	4.455	63	6528	9.51	ng		98
31) Trichloroethene	4.261	130	6407	9.31	ng		96
32) Heptane	3.994	71	8652	8.34	ng		95
33) Bromodichloromethane	4.669	83	5923	9.96	ng		98
34) 1,4-Dioxane	4.506	88	4792	10.15	ng		99
35) cis-1,3-Dichloropropene	5.038	75	7139	10.39	ng		96
36) 4-Methyl-2-pentanone (...	5.898	58	5629	11.02	ng		96
37) trans-1,3-Dichloropropene	5.541	75	5986	10.42	ng		100
38) 1,1,2-Trichloroethane	5.700	99	3780	10.16	ng		96
42) 1,3-Dichloropropane	5.834	76	10553	10.09	ng		92
43) Octane	5.484	57	5011	10.57	ng		98
44) 2-Hexanone	5.898	58	5297	11.51	ng	#	46
45) Dibromochloromethane	6.006	129	3632	9.44	ng		99
46) 1,2-Dibromoethane (EDB)	6.092	107	5601	9.97	ng		97

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070904.D
Acq On : 09 Jul 2024 01:16 pm
Operator : KAI
Sample : SEQ-CAL3
Misc : 1, dual bed, 10ng
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 10 10:19:30 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:29 2024
Response via : Initial Calibration

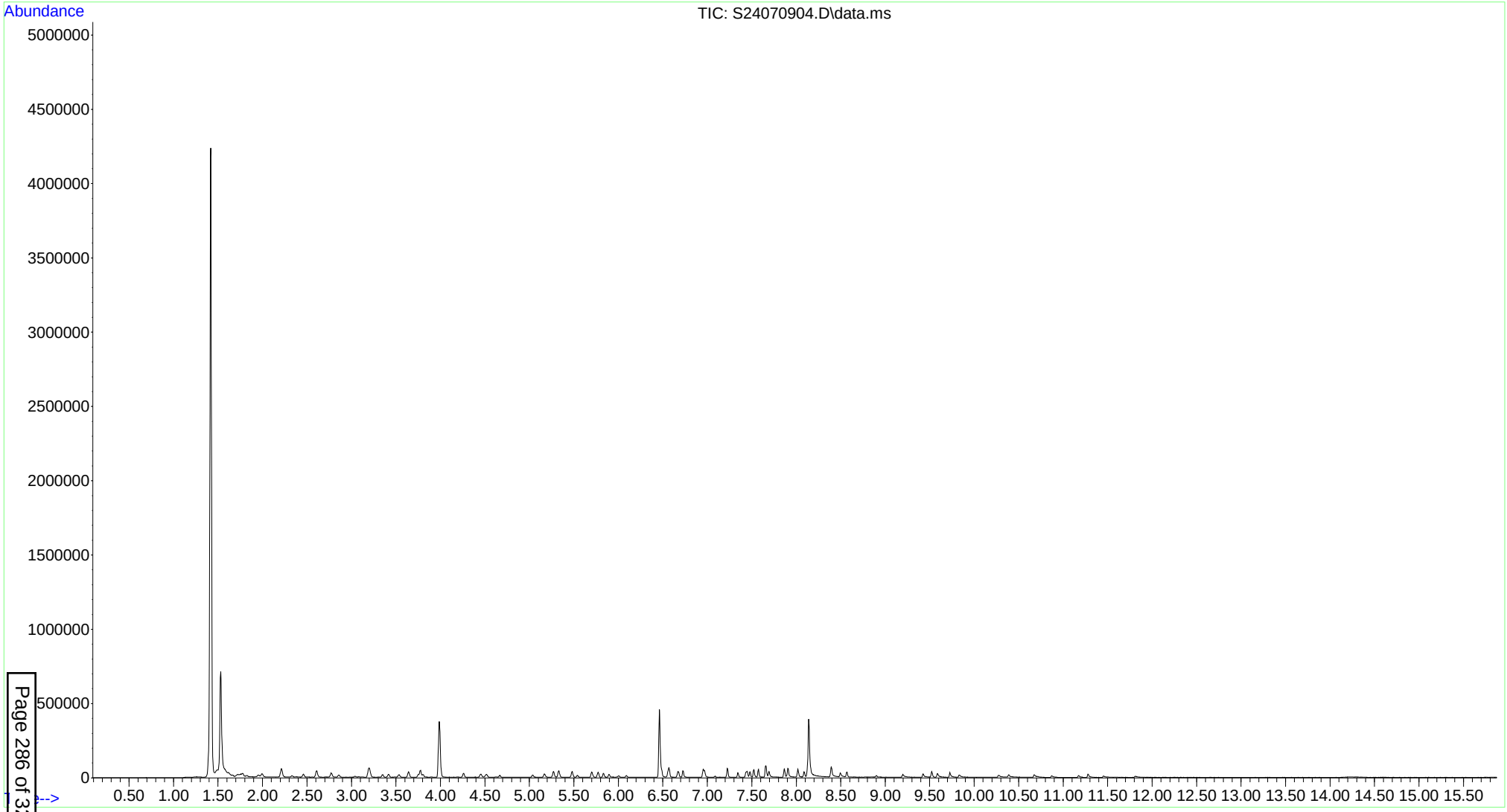
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) Tetrachloroethene	5.770	131	5547	10.10	ng		100
48) 1,1,1,2-Tetrachloroethane	6.556	131	4717	9.91	ng		94
49) Chlorobenzene	6.486	112	17018	9.89	ng		96
50) Ethylbenzene	6.569	106	8095	10.52	ng		98
51) p & m-Xylene	6.671	106	9005	9.19	ng		95
52) Bromoform	7.088	173	2427	11.91	ng		96
53) Nonane	6.728	57	9267	11.46	ng		100
54) Styrene	6.970	104	13347	10.91	ng		98
55) 1,1,2,2-Tetrachloroethane	7.448	83	9316	9.82	ng		98
56) o-Xylene	6.954	106	8893	10.18	ng		95
57) 1,2,3-Trichloropropane	7.480	75	9455	9.84	ng		99
58) Isopropylbenzene	7.225	105	25391	10.64	ng		98
61) Bromobenzene	7.435	156	5943	9.22	ng		99
62) n-Propylbenzene	7.521	91	26630	9.80	ng		99
63) 2-Chlorotoluene	7.575	91	18135	9.81	ng		97
64) 4-Chlorotoluene	7.661	91	19161	10.10	ng		98
65) 1,3,5-Trimethylbenzene	7.652	120	9025	9.91	ng		98
66) Decane	7.693	57	8582	11.39	ng		97
67) tert-Butylbenzene	7.865	119	17788	9.26	ng		100
68) 1,2,4-Trimethylbenzene	7.906	120	8676	10.56	ng		78
69) sec-Butylbenzene	8.018	105	24678	10.78	ng		98
70) 1,3-Dichlorobenzene	8.088	146	9722	9.92	ng		100
71) p-Isopropyl toluene	8.126	119	20413	10.10	ng		96
72) 1,4-Dichlorobenzene	8.158	146	10594	8.74	ng		99
73) 1,2-Dichlorobenzene	8.393	146	11343	9.19	ng		97
74) n-Butylbenzene	8.396	91	16826	10.45	ng		99
75) Undecane	8.495	57	6959	11.28	ng		98
76) 1,2-Dibromo-3-chloropr...	8.903	157	1509	9.66	ng		92
77) Hexachloroethane	8.572	201	1824	10.75	ng		96
78) Dodecane	9.199	57	6537	10.91	ng		100
79) 1,2,4-Trichlorobenzene	9.425	180	7882	10.08	ng		98
80) Naphthalene	9.587	128	19638	10.38	ng		99
81) Hexachlorobutadiene	9.523	225	4522	8.62	ng		88
82) 1,2,3-Trichlorobenzene	9.727	180	8456	10.40	ng		98
83) Tridecane	9.832	57	5517	10.48	ng		94
84) 2-Methylnaphthalene	10.278	142	9147	10.29	ng		95
85) Tetradecane	10.389	57	5525	12.06	ng		95
86) Pentadecane	10.873	57	5023	9.79	ng		100
87) Biphenyl	10.676	154	13689	Below Cal		#	82
88) Acenaphthylene	11.172	152	11452	9.19	ng	#	61
89) Acenaphthene	11.277	153	8870	8.92	ng		97
90) Dibenzofuran	11.452	168	12358	Below Cal		#	70
91) Fluorene	11.809	166	6922	Below Cal			84
93) TPH c4-c9	5.050	TIC	1794492m	795.46	ng		
94) TPH C5-C8	5.000	TIC	1020268m	491.74	ng		
95) TPH c10-c15	10.050	TIC	1505119m	229.46	ng		
96) TPH C9-C15	10.000	TIC	1999803m	239.85	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070904.D
Acq On : 09 Jul 2024 01:16 pm
Operator : KAI
Sample : SEQ-CAL3
Misc : 1, dual bed, 10ng
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 10 10:19:30 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:29 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070905.D
Acq On : 09 Jul 2024 01:47 pm
Operator : KAI
Sample : SEQ-CAL4
Misc : 1, dual bed, 25ng
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 10 10:19:39 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:38 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.988	96	247790	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	174328	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	81969	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.752	65	22048	24.83	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 24.83%#				
40) Toluene-d8	5.270	98	56482	25.55	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 25.55%#				
59) Bromofluorobenzene	7.346	174	14972	20.11	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 20.11%#				
Target Compounds							Qvalue
2) Chloroethane	1.826	66	3245	18.11	ng		97
3) Bromomethane	1.772	94	8764	18.86	ng		93
4) Vinyl Chloride	1.622	62	9875	14.68	ng	#	95
5) Chloromethane	1.587	52	2637	9.66	ng		96
6) Dichlorodifluoromethan...	1.505	85	3351	3.71	ng		99
7) Trichlorofluoromethane...	1.957	101	24875	21.04	ng		100
8) Pentane	1.995	57	3066	17.72	ng		97
9) 1,1-Dichloroethene	2.205	96	12157	23.33	ng		97
10) Methylene Chloride	2.460	84	16938	24.57	ng		97
11) 1,1,2-Trichlorotrifluo...	2.208	101	15805	25.06	ng		99
12) Carbon disulfide	2.329	76	22014	18.73	ng		98
13) Acetone	2.214	58	13511	19.98	ng	#	73
14) trans-1,2-Dichloroethene	2.612	61	23220	24.66	ng		99
15) Methyl-t-butyl ether	2.603	73	46838	23.19	ng		100
16) 1,1-Dichloroethane	2.857	63	30503	24.94	ng		99
17) Hexane	2.775	57	23622	22.41	ng		99
18) cis-1,2-Dichloroethene	2.612	96	15394	24.48	ng		99
19) 2-Butanone	3.189	72	10014	23.55	ng		99
20) Bromochloromethane	3.351	128	8482	25.09	ng	#	97
21) Chloroform	3.418	83	31253	24.83	ng		98
22) 2,2-Dichloropropane	3.208	77	23012	24.85	ng		100
24) 1,2-Dichloroethane	3.806	62	27747	25.54	ng		97
25) 1,1,1-Trichloroethane	3.532	97	25084	26.05	ng		99
26) 1,1-Dichloropropene	3.641	75	23225	25.05	ng		100
27) Carbon Tetrachloride	3.644	117	19773	26.16	ng		98
28) Benzene	3.774	77	16758	21.30	ng		98
29) Dibromomethane	4.519	93	11492	26.53	ng		99
30) 1,2-Dichloropropane	4.452	63	16943	24.48	ng		98
31) Trichloroethene	4.258	130	17445	24.78	ng		97
32) Heptane	3.997	71	18367	19.50	ng		96
33) Bromodichloromethane	4.666	83	16704	26.85	ng		100
34) 1,4-Dioxane	4.510	88	12650	25.30	ng		100
35) cis-1,3-Dichloropropene	5.035	75	19852	27.24	ng		99
36) 4-Methyl-2-pentanone (...	5.894	58	16009	27.67	ng		99
37) trans-1,3-Dichloropropene	5.538	75	16763	27.48	ng		100
38) 1,1,2-Trichloroethane	5.700	99	10039	25.64	ng		95
41) Toluene	5.331	92	39127	24.54	ng		99
42) 1,3-Dichloropropane	5.834	76	28764	25.48	ng		98
43) Octane	5.481	57	13231	25.45	ng		98

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070905.D
Acq On : 09 Jul 2024 01:47 pm
Operator : KAI
Sample : SEQ-CAL4
Misc : 1, dual bed, 25ng
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 10 10:19:39 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:38 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2-Hexanone	5.894	58	15378	29.56	ng		98
45) Dibromochloromethane	6.006	129	10603	26.09	ng		99
46) 1,2-Dibromoethane (EDB)	6.089	107	15490	25.66	ng		97
47) Tetrachloroethene	5.770	131	15003	25.30	ng		98
48) 1,1,1,2-Tetrachloroethane	6.556	131	12898	25.26	ng		99
49) Chlorobenzene	6.486	112	44610	24.19	ng		99
50) Ethylbenzene	6.569	106	22206	26.36	ng		99
51) p & m-Xylene	6.674	106	26309	25.64	ng		100
52) Bromoform	7.085	173	6390	27.39	ng		98
53) Nonane	6.728	57	26555	29.11	ng		98
54) Styrene	6.970	104	37782	27.85	ng		98
55) 1,1,2,2-Tetrachloroethane	7.448	83	27131	26.74	ng		98
56) o-Xylene	6.951	106	25017	26.46	ng		98
57) 1,2,3-Trichloropropane	7.480	75	26585	25.84	ng		97
58) Isopropylbenzene	7.225	105	70382	26.83	ng		99
61) Bromobenzene	7.435	156	16362	21.97	ng		96
62) n-Propylbenzene	7.521	91	80711	25.21	ng		99
63) 2-Chlorotoluene	7.575	91	51042	23.43	ng		100
64) 4-Chlorotoluene	7.661	91	56780	25.14	ng		99
65) 1,3,5-Trimethylbenzene	7.655	120	25460	23.64	ng		99
66) Decane	7.693	57	29454	29.80	ng		99
67) tert-Butylbenzene	7.865	119	51256	23.07	ng		99
68) 1,2,4-Trimethylbenzene	7.906	120	25048	25.23	ng		97
69) sec-Butylbenzene	8.018	105	68765	24.69	ng		100
70) 1,3-Dichlorobenzene	8.088	146	30294	26.13	ng		100
71) p-Isopropyl toluene	8.126	119	61783	25.69	ng		99
72) 1,4-Dichlorobenzene	8.158	146	30615	22.22	ng		99
73) 1,2-Dichlorobenzene	8.390	146	32493	22.81	ng		97
74) n-Butylbenzene	8.396	91	56576	29.18	ng		99
75) Undecane	8.495	57	26015	32.39	ng		99
76) 1,2-Dibromo-3-chloropr...	8.903	157	5148	28.52	ng		99
77) Hexachloroethane	8.568	201	5056	24.50	ng		98
78) Dodecane	9.199	57	22956	31.36	ng		97
79) 1,2,4-Trichlorobenzene	9.425	180	22667	24.37	ng		99
80) Naphthalene	9.587	128	64584	27.97	ng		99
81) Hexachlorobutadiene	9.523	225	14709	24.78	ng		99
82) 1,2,3-Trichlorobenzene	9.727	180	23789	23.94	ng		97
83) Tridecane	9.832	57	20765	32.08	ng		98
84) 2-Methylnaphthalene	10.275	142	30942	29.05	ng		99
85) Tetradecane	10.386	57	19015	30.24	ng		97
86) Pentadecane	10.870	57	16542	27.62	ng		100
87) Biphenyl	10.673	154	44683	Below Cal			94
88) Acenaphthylene	11.172	152	37701	27.57	ng		98
89) Acenaphthene	11.277	153	31705	25.20	ng		95
90) Dibenzofuran	11.453	168	41117	Below Cal			98
91) Fluorene	11.809	166	22139	Below Cal			93
92) Carbazole	14.235	167	8899	14.89	ng	#	100
93) TPH c4-c9	5.050	TIC	4515570m	1529.15	ng		
94) TPH C5-C8	5.000	TIC	2421476m	914.01	ng		
95) TPH c10-c15	10.050	TIC	3393723m	487.02	ng		
96) TPH C9-C15	10.000	TIC	4640075m	492.71	ng		

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070905.D
Acq On : 09 Jul 2024 01:47 pm
Operator : KAI
Sample : SEQ-CAL4
Misc : 1, dual bed, 25ng
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 10 10:19:39 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:38 2024
Response via : Initial Calibration

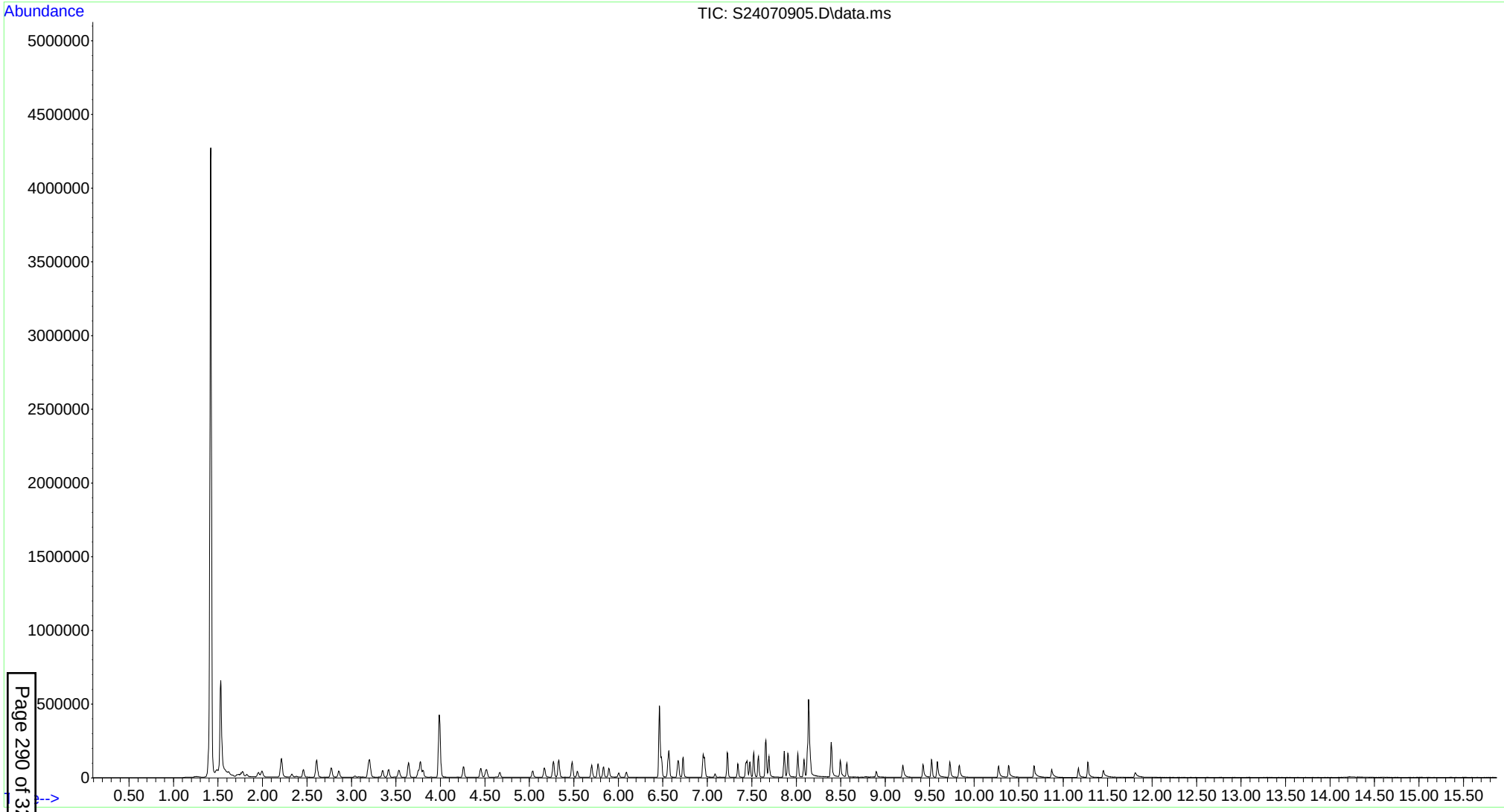
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070905.D
Acq On : 09 Jul 2024 01:47 pm
Operator : KAI
Sample : SEQ-CAL4
Misc : 1, dual bed, 25ng
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 10 10:19:39 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:38 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070906.D
Acq On : 09 Jul 2024 02:18 pm
Operator : KAI
Sample : SEQ-CAL5
Misc : 1, dual bed, 50ng
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 10 10:19:49 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:49 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.987	96	243055	100.00	ng	0.00
39) Chlorobenzene-d5	6.461	117	170073	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	83991	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.752	65	43220	49.71	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 49.71%#			
40) Toluene-d8	5.270	98	113387	52.29	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 52.29%#			
59) Bromofluorobenzene	7.343	174	31361	45.39	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 45.39%#			
Target Compounds						Qvalue
2) Chloroethane	1.823	66	7766	57.22	ng	100
3) Bromomethane	1.775	94	20514	56.46	ng	98
4) Vinyl Chloride	1.622	62	29684	50.17	ng	100
5) Chloromethane	1.581	52	9933	75.90	ng	97
6) Dichlorodifluoromethan...	1.498	85	31969	45.82	ng	96
7) Trichlorofluoromethane...	1.956	101	56964	51.14	ng	100
8) Pentane	1.991	57	7970	61.85	ng	100
9) 1,1-Dichloroethene	2.205	96	24392	48.54	ng	100
10) Methylene Chloride	2.459	84	33622	49.94	ng	100
11) 1,1,2-Trichlorotrifluo...	2.211	101	32521	52.53	ng	100
12) Carbon disulfide	2.332	76	51530	47.69	ng	100
13) Acetone	2.214	58	25021	41.93	ng	100
14) trans-1,2-Dichloroethene	2.609	61	46337	50.35	ng	100
15) Methyl-t-butyl ether	2.603	73	94239	48.44	ng	100
16) 1,1-Dichloroethane	2.857	63	59778	49.87	ng	100
17) Hexane	2.771	57	48646	48.29	ng	100
18) cis-1,2-Dichloroethene	2.612	96	30349	49.45	ng	100
19) 2-Butanone	3.185	72	19946	50.23	ng	100
20) Bromochloromethane	3.351	128	16895	50.90	ng	100
21) Chloroform	3.418	83	61692	50.05	ng	100
22) 2,2-Dichloropropane	3.208	77	45894	50.60	ng	100
24) 1,2-Dichloroethane	3.806	62	54042	50.44	ng	100
25) 1,1,1-Trichloroethane	3.532	97	50838	53.26	ng	100
26) 1,1-Dichloropropene	3.640	75	45684	50.20	ng	100
27) Carbon Tetrachloride	3.640	117	40284	53.72	ng	100
28) Benzene	3.774	77	32742	45.82	ng	100
29) Dibromomethane	4.519	93	22663	52.54	ng	100
30) 1,2-Dichloropropane	4.455	63	34392	51.55	ng	100
31) Trichloroethene	4.261	130	34897	50.65	ng	100
32) Heptane	3.997	71	35106	46.53	ng	100
33) Bromodichloromethane	4.665	83	33270	53.54	ng	100
34) 1,4-Dioxane	4.506	88	25322	51.12	ng	100
35) cis-1,3-Dichloropropene	5.035	75	41796	57.19	ng	100
36) 4-Methyl-2-pentanone (...	5.891	58	34687	56.13	ng	100
37) trans-1,3-Dichloropropene	5.538	75	35262	57.50	ng	100
38) 1,1,2-Trichloroethane	5.700	99	20374	52.71	ng	100
41) Toluene	5.331	92	77098	50.02	ng	100
42) 1,3-Dichloropropane	5.831	76	57491	51.95	ng	100
43) Octane	5.480	57	27463	53.90	ng	100

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070906.D
Acq On : 09 Jul 2024 02:18 pm
Operator : KAI
Sample : SEQ-CAL5
Misc : 1, dual bed, 50ng
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 10 10:19:49 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:49 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2-Hexanone	5.891	58	33771	63.64	ng		100
45) Dibromochloromethane	6.006	129	21379	53.34	ng		100
46) 1,2-Dibromoethane (EDB)	6.088	107	31855	53.73	ng		100
47) Tetrachloroethene	5.770	131	28996	49.98	ng		100
48) 1,1,1,2-Tetrachloroethane	6.556	131	25585	51.23	ng		100
49) Chlorobenzene	6.483	112	87433	48.99	ng		100
50) Ethylbenzene	6.569	106	43632	52.38	ng		100
51) p & m-Xylene	6.671	106	52551	52.17	ng		99
52) Bromoform	7.085	173	13443	57.69	ng		100
53) Nonane	6.728	57	55992	60.43	ng		100
54) Styrene	6.967	104	78919	57.98	ng		100
55) 1,1,2,2-Tetrachloroethane	7.448	83	53435	53.07	ng		100
56) o-Xylene	6.954	106	51321	54.84	ng		100
57) 1,2,3-Trichloropropane	7.480	75	52006	51.38	ng		100
58) Isopropylbenzene	7.225	105	141471	54.28	ng		100
61) Bromobenzene	7.435	156	33699	45.54	ng		100
62) n-Propylbenzene	7.521	91	166865	50.76	ng		100
63) 2-Chlorotoluene	7.575	91	103879	47.27	ng		100
64) 4-Chlorotoluene	7.661	91	120325	51.92	ng		100
65) 1,3,5-Trimethylbenzene	7.655	120	53742	49.36	ng		100
66) Decane	7.693	57	64899	55.30	ng		100
67) tert-Butylbenzene	7.865	119	103067	46.16	ng		100
68) 1,2,4-Trimethylbenzene	7.906	120	52205	51.20	ng		100
69) sec-Butylbenzene	8.018	105	139305	48.96	ng		100
70) 1,3-Dichlorobenzene	8.088	146	63213	52.62	ng		99
71) p-Isopropyl toluene	8.126	119	128944	51.96	ng		100
72) 1,4-Dichlorobenzene	8.154	146	64342	46.88	ng		100
73) 1,2-Dichlorobenzene	8.390	146	65542	45.91	ng		100
74) n-Butylbenzene	8.393	91	121864	58.88	ng		100
75) Undecane	8.495	57	60694	59.27	ng		100
76) 1,2-Dibromo-3-chloropr...	8.899	157	12661	61.32	ng		100
77) Hexachloroethane	8.568	201	10033	47.69	ng		100
78) Dodecane	9.199	57	54021	67.71	ng		100
79) 1,2,4-Trichlorobenzene	9.425	180	46667	49.28	ng		100
80) Naphthalene	9.584	128	144939	55.78	ng		100
81) Hexachlorobutadiene	9.523	225	29253	48.21	ng		100
82) 1,2,3-Trichlorobenzene	9.727	180	48664	49.53	ng		100
83) Tridecane	9.832	57	52616	64.28	ng		100
84) 2-Methylnaphthalene	10.271	142	76943	67.76	ng		100
85) Tetradecane	10.386	57	51717	68.42	ng		100
86) Pentadecane	10.873	57	42661	63.98	ng		100
87) Biphenyl	10.672	154	101123	50.18	ng		100
88) Acenaphthylene	11.169	152	90507	50.84	ng		100
89) Acenaphthene	11.277	153	75338	46.66	ng		100
90) Dibenzofuran	11.452	168	93373	50.07	ng		100
91) Fluorene	11.812	166	52283	56.53	ng		100
92) Carbazole	14.225	167	20381	41.39	ng	#	100
93) TPH c4-c9	5.050	TIC	8935052m	2768.76	ng		
94) TPH C5-C8	5.000	TIC	4640633m	1588.10	ng		
95) TPH c10-c15	10.050	TIC	6688052m	1017.10	ng		
96) TPH C9-C15	10.000	TIC	9115516m	969.89	ng		

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070906.D
Acq On : 09 Jul 2024 02:18 pm
Operator : KAI
Sample : SEQ-CAL5
Misc : 1, dual bed, 50ng
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 10 10:19:49 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:49 2024
Response via : Initial Calibration

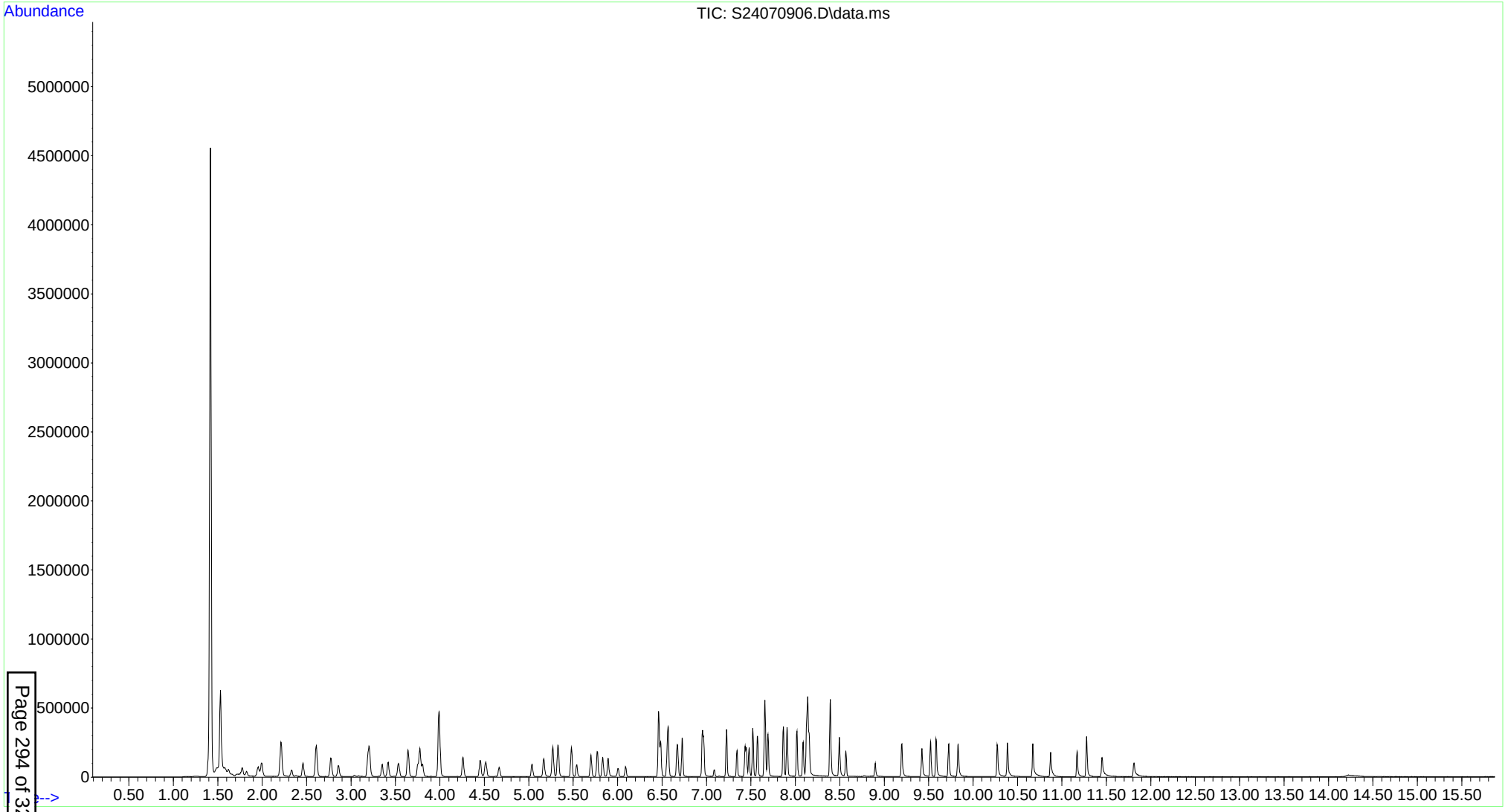
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070906.D
Acq On : 09 Jul 2024 02:18 pm
Operator : KAI
Sample : SEQ-CAL5
Misc : 1, dual bed, 50ng
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 10 10:19:49 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:49 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070907.D
Acq On : 09 Jul 2024 02:49 pm
Operator : KAI
Sample : SEQ-CAL6
Misc : 1, dual bed, 100ng
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 10 10:19:58 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:57 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.988	96	235366	100.00	ng	0.00
39) Chlorobenzene-d5	6.461	117	163589	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	84037	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	83374	99.15	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 99.15%			
40) Toluene-d8	5.271	98	220081	104.56	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 104.56%			
59) Bromofluorobenzene	7.343	174	59683	91.49	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 91.49%			
Target Compounds						Qvalue
2) Chloroethane	1.826	66	13900	95.20	ng	96
3) Bromomethane	1.772	94	38499	99.55	ng	99
4) Vinyl Chloride	1.619	62	53584	93.45	ng	100
5) Chloromethane	1.584	52	16197	91.39	ng	99
6) Dichlorodifluoromethan...	1.498	85	44345	66.75	ng	100
7) Trichlorofluoromethane...	1.950	101	105698	97.54	ng	98
8) Pentane	1.992	57	16534	112.10	ng	99
9) 1,1-Dichloroethene	2.208	96	49999	103.35	ng	99
10) Methylene Chloride	2.460	84	65072	99.83	ng	99
11) 1,1,2-Trichlorotrifluo...	2.208	101	62718	103.57	ng	100
12) Carbon disulfide	2.329	76	104471	100.77	ng	99
13) Acetone	2.215	58	46269	84.63	ng	98
14) trans-1,2-Dichloroethene	2.609	61	92415	103.55	ng	98
15) Methyl-t-butyl ether	2.603	73	183393	97.96	ng	100
16) 1,1-Dichloroethane	2.858	63	117025	100.86	ng	99
17) Hexane	2.772	57	101085	104.34	ng	99
18) cis-1,2-Dichloroethene	2.612	96	61715	104.08	ng	97
19) 2-Butanone	3.185	72	38989	101.04	ng	94
20) Bromochloromethane	3.351	128	32674	101.29	ng	95
21) Chloroform	3.415	83	120873	101.25	ng	100
22) 2,2-Dichloropropane	3.208	77	94141	106.93	ng	99
24) 1,2-Dichloroethane	3.803	62	104349	100.39	ng	100
25) 1,1,1-Trichloroethane	3.529	97	102620	109.59	ng	100
26) 1,1-Dichloropropene	3.641	75	90318	102.41	ng	100
27) Carbon Tetrachloride	3.641	117	84735	114.97	ng	99
28) Benzene	3.774	77	62405	92.76	ng	99
29) Dibromomethane	4.519	93	44832	106.25	ng	99
30) 1,2-Dichloropropane	4.452	63	66411	100.40	ng	99
31) Trichloroethene	4.261	130	68373	102.22	ng	99
32) Heptane	3.997	71	69686	100.76	ng	96
33) Bromodichloromethane	4.666	83	68633	112.46	ng	99
34) 1,4-Dioxane	4.507	88	48113	98.61	ng	99
35) cis-1,3-Dichloropropene	5.035	75	86228	118.44	ng	100
36) 4-Methyl-2-pentanone (...	5.891	58	68917	105.24	ng	97
37) trans-1,3-Dichloropropene	5.538	75	74371	121.59	ng	99
38) 1,1,2-Trichloroethane	5.700	99	38924	102.87	ng	99
41) Toluene	5.331	92	152468	102.83	ng	100
42) 1,3-Dichloropropane	5.831	76	109362	101.94	ng	100
43) Octane	5.481	57	55593	111.69	ng	99

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070907.D
Acq On : 09 Jul 2024 02:49 pm
Operator : KAI
Sample : SEQ-CAL6
Misc : 1, dual bed, 100ng
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 10 10:19:58 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:57 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2-Hexanone	5.891	58	67088	124.64	ng		98
45) Dibromochloromethane	6.003	129	44930	115.00	ng		99
46) 1,2-Dibromoethane (EDB)	6.089	107	62924	108.72	ng		99
47) Tetrachloroethene	5.770	131	54468	97.61	ng		98
48) 1,1,1,2-Tetrachloroethane	6.557	131	52263	108.26	ng		100
49) Chlorobenzene	6.483	112	168947	98.81	ng		99
50) Ethylbenzene	6.569	106	84909	104.98	ng		99
51) p & m-Xylene	6.671	106	107352	109.84	ng		98
52) Bromoform	7.088	173	28345	122.69	ng		99
53) Nonane	6.729	57	113154	121.87	ng		99
54) Styrene	6.967	104	165516	122.51	ng		97
55) 1,1,2,2-Tetrachloroethane	7.448	83	108002	110.16	ng		99
56) o-Xylene	6.955	106	102586	111.80	ng		98
57) 1,2,3-Trichloropropane	7.477	75	101704	103.89	ng		98
58) Isopropylbenzene	7.225	105	279139	109.48	ng		99
61) Bromobenzene	7.432	156	65009	89.39	ng		97
62) n-Propylbenzene	7.521	91	341735	103.58	ng		99
63) 2-Chlorotoluene	7.572	91	208273	95.77	ng		99
64) 4-Chlorotoluene	7.661	91	239109	102.33	ng		100
65) 1,3,5-Trimethylbenzene	7.655	120	107527	98.96	ng		99
66) Decane	7.693	57	132973	104.72	ng		99
67) tert-Butylbenzene	7.865	119	205564	93.45	ng		99
68) 1,2,4-Trimethylbenzene	7.906	120	103811	101.28	ng		99
69) sec-Butylbenzene	8.018	105	278883	98.38	ng		99
70) 1,3-Dichlorobenzene	8.088	146	128998	106.21	ng		99
71) p-Isopropyl toluene	8.126	119	259612	103.75	ng		100
72) 1,4-Dichlorobenzene	8.155	146	131357	96.86	ng		98
73) 1,2-Dichlorobenzene	8.390	146	128620	91.55	ng		99
74) n-Butylbenzene	8.393	91	252675	117.82	ng		100
75) Undecane	8.492	57	130618	111.60	ng		100
76) 1,2-Dibromo-3-chloropr...	8.900	157	27864	114.90	ng		96
77) Hexachloroethane	8.568	201	20913	100.28	ng		99
78) Dodecane	9.196	57	120562	141.04	ng		100
79) 1,2,4-Trichlorobenzene	9.425	180	93943	99.44	ng		100
80) Naphthalene	9.584	128	307350	108.58	ng		100
81) Hexachlorobutadiene	9.524	225	56125	93.11	ng		99
82) 1,2,3-Trichlorobenzene	9.727	180	95324	97.67	ng		97
83) Tridecane	9.829	57	124719	124.90	ng		98
84) 2-Methylnaphthalene	10.272	142	167782	137.88	ng		100
85) Tetradecane	10.386	57	121771	125.51	ng		99
86) Pentadecane	10.870	57	100242	123.70	ng		100
87) Biphenyl	10.673	154	217438	92.49	ng		98
88) Acenaphthylene	11.169	152	204103	91.18	ng		99
89) Acenaphthene	11.278	153	165358	88.54	ng		100
90) Dibenzofuran	11.449	168	198641	91.30	ng		95
91) Fluorene	11.809	166	119420	94.61	ng		96
92) Carbazole	14.229	167	47651	92.34	ng	#	100
93) TPH c4-c9	5.050	TIC	17434015m	5160.54	ng		
94) TPH C5-C8	5.000	TIC	8955061m	2876.80	ng		
95) TPH c10-c15	10.050	TIC	13420651m	2015.89	ng		
96) TPH C9-C15	10.000	TIC	18159250m	1942.79	ng		

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070907.D
Acq On : 09 Jul 2024 02:49 pm
Operator : KAI
Sample : SEQ-CAL6
Misc : 1, dual bed, 100ng
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 10 10:19:58 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:57 2024
Response via : Initial Calibration

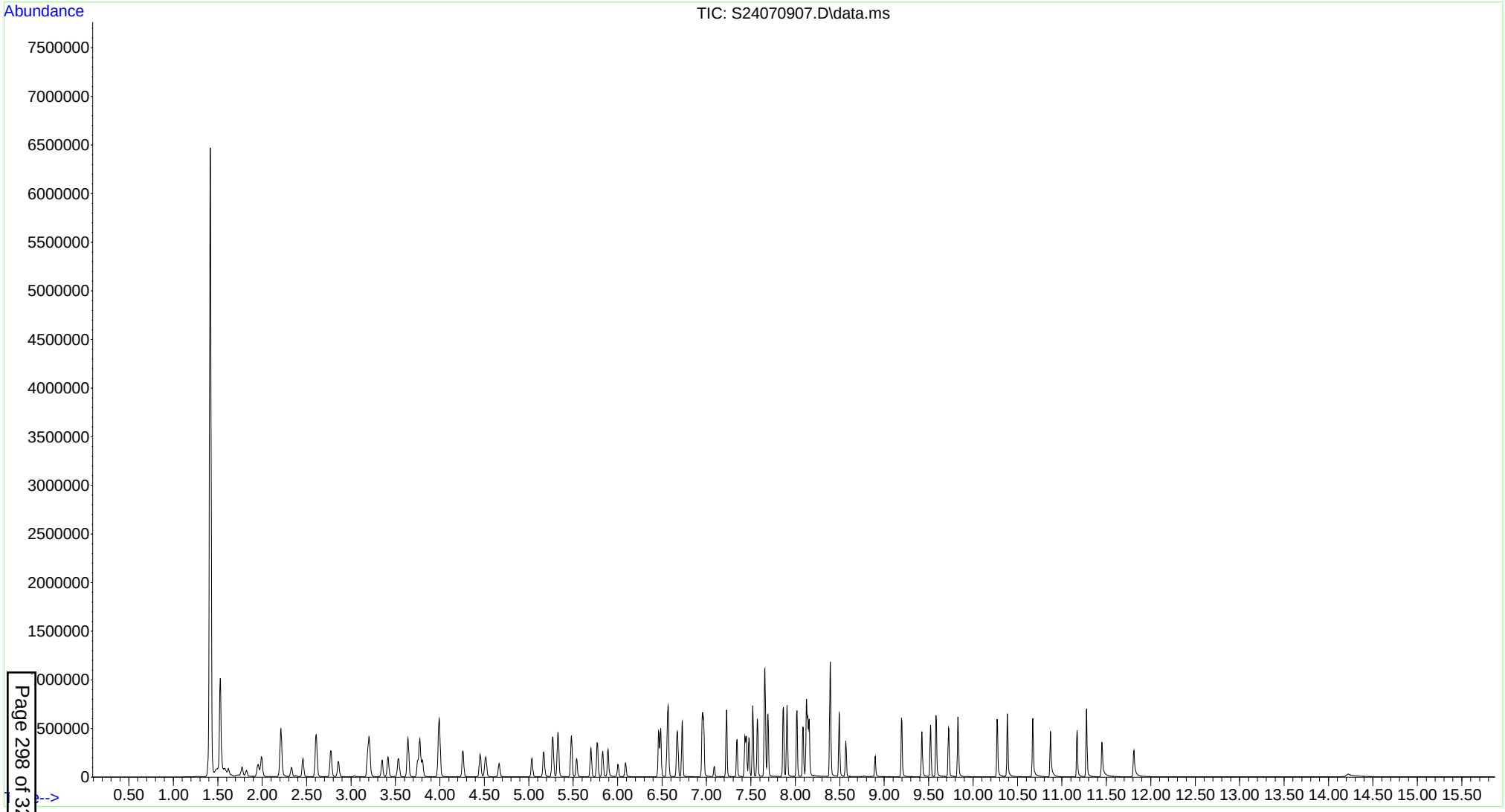
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070907.D
Acq On : 09 Jul 2024 02:49 pm
Operator : KAI
Sample : SEQ-CAL6
Misc : 1, dual bed, 100ng
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 10 10:19:58 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:19:57 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070908.D
Acq On : 09 Jul 2024 03:19 pm
Operator : KAI
Sample : SEQ-CAL7
Misc : 1, dual bed, 200ng
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 10 10:20:07 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.984	96	247921	100.00	ng	0.00
39) Chlorobenzene-d5	6.461	117	174901	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	94177	100.00	ng	# 0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	174526	197.31	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 197.31%#			
40) Toluene-d8	5.267	98	478493	211.02	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 211.02%#			
59) Bromofluorobenzene	7.343	174	135682	197.34	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 197.34%#			
Target Compounds						Qvalue
2) Chloroethane	1.823	66	29482	198.90	ng	98
3) Bromomethane	1.772	94	88103	217.01	ng	98
4) Vinyl Chloride	1.622	62	127653	213.69	ng	99
5) Chloromethane	1.584	52	39083	223.91	ng	99
6) Dichlorodifluoromethan...	1.498	85	137674	208.28	ng	100
7) Trichlorofluoromethane...	1.953	101	235313	207.01	ng	99
8) Pentane	1.992	57	35278	208.08	ng	97
9) 1,1-Dichloroethene	2.205	96	105624	206.12	ng	100
10) Methylene Chloride	2.460	84	136608	199.02	ng	98
11) 1,1,2-Trichlorotrifluo...	2.208	101	137943	214.98	ng	99
12) Carbon disulfide	2.329	76	270126	247.05	ng	99
13) Acetone	2.214	58	98759	178.34	ng	97
14) trans-1,2-Dichloroethene	2.609	61	195455	206.69	ng	99
15) Methyl-t-butyl ether	2.603	73	391601	199.26	ng	100
16) 1,1-Dichloroethane	2.858	63	248616	203.14	ng	99
17) Hexane	2.772	57	211071	205.35	ng	96
18) cis-1,2-Dichloroethene	2.609	96	129025	205.17	ng	99
19) 2-Butanone	3.182	72	85361	208.37	ng	95
20) Bromochloromethane	3.351	128	70435	206.85	ng	96
21) Chloroform	3.415	83	255895	203.07	ng	100
22) 2,2-Dichloropropane	3.208	77	205567	219.14	ng	98
24) 1,2-Dichloroethane	3.803	62	221352	202.05	ng	100
25) 1,1,1-Trichloroethane	3.532	97	223834	223.36	ng	99
26) 1,1-Dichloropropene	3.641	75	193961	207.96	ng	100
27) Carbon Tetrachloride	3.641	117	189798	238.53	ng	100
28) Benzene	3.774	77	130156	187.06	ng	98
29) Dibromomethane	4.519	93	98675	219.72	ng	99
30) 1,2-Dichloropropane	4.452	63	142675	204.16	ng	99
31) Trichloroethene	4.258	130	144409	204.20	ng	99
32) Heptane	3.997	71	143870	196.36	ng	96
33) Bromodichloromethane	4.666	83	158089	240.92	ng	99
34) 1,4-Dioxane	4.507	88	109002	214.34	ng	99
35) cis-1,3-Dichloropropene	5.035	75	202893	256.68	ng	100
36) 4-Methyl-2-pentanone (...	5.891	58	163667	228.24	ng	98
37) trans-1,3-Dichloropropene	5.538	75	182302	273.12	ng	98
38) 1,1,2-Trichloroethane	5.700	99	86286	215.47	ng	99
41) Toluene	5.328	92	328814	205.96	ng	99
42) 1,3-Dichloropropane	5.831	76	238947	207.66	ng	100
43) Octane	5.481	57	120962	222.96	ng	100

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070908.D
Acq On : 09 Jul 2024 03:19 pm
Operator : KAI
Sample : SEQ-CAL7
Misc : 1, dual bed, 200ng
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 10 10:20:07 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:06 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2-Hexanone	5.891	58	161680	269.87	ng		100
45) Dibromochloromethane	6.006	129	110821	258.83	ng		99
46) 1,2-Dibromoethane (EDB)	6.089	107	143760	228.99	ng		100
47) Tetrachloroethene	5.770	131	117711	198.09	ng		99
48) 1,1,1,2-Tetrachloroethane	6.557	131	122416	233.97	ng		99
49) Chlorobenzene	6.483	112	370340	202.99	ng		99
50) Ethylbenzene	6.569	106	191569	219.71	ng		99
51) p & m-Xylene	6.674	106	240454	226.40	ng		99
52) Bromoform	7.088	173	72637	283.35	ng		99
53) Nonane	6.728	57	251842	244.78	ng		99
54) Styrene	6.967	104	383178	255.67	ng		97
55) 1,1,2,2-Tetrachloroethane	7.448	83	249591	234.14	ng		98
56) o-Xylene	6.955	106	230972	230.90	ng		97
57) 1,2,3-Trichloropropane	7.480	75	229312	217.69	ng		97
58) Isopropylbenzene	7.225	105	637983	230.39	ng		100
61) Bromobenzene	7.432	156	149715	187.01	ng		99
62) n-Propylbenzene	7.521	91	786105	211.35	ng		100
63) 2-Chlorotoluene	7.572	91	467652	193.26	ng		100
64) 4-Chlorotoluene	7.658	91	559487	212.84	ng		100
65) 1,3,5-Trimethylbenzene	7.655	120	248704	204.60	ng		99
66) Decane	7.690	57	305994	207.64	ng		99
67) tert-Butylbenzene	7.865	119	472343	193.72	ng		100
68) 1,2,4-Trimethylbenzene	7.906	120	240572	208.98	ng		100
69) sec-Butylbenzene	8.018	105	643493	203.10	ng		99
70) 1,3-Dichlorobenzene	8.085	146	292149	212.43	ng		98
71) p-Isopropyl toluene	8.126	119	605616	214.62	ng		100
72) 1,4-Dichlorobenzene	8.155	146	303623	200.83	ng		100
73) 1,2-Dichlorobenzene	8.390	146	297671	191.76	ng		99
74) n-Butylbenzene	8.393	91	600398	242.62	ng		99
75) Undecane	8.495	57	310055	217.37	ng		100
76) 1,2-Dibromo-3-chloropr...	8.900	157	76996	254.69	ng		97
77) Hexachloroethane	8.572	201	53669	229.53	ng		98
78) Dodecane	9.196	57	298906	292.05	ng		100
79) 1,2,4-Trichlorobenzene	9.422	180	217027	205.18	ng		99
80) Naphthalene	9.584	128	750445	222.19	ng		99
81) Hexachlorobutadiene	9.520	225	128184	191.96	ng		98
82) 1,2,3-Trichlorobenzene	9.724	180	222088	206.69	ng		99
83) Tridecane	9.829	57	318496	239.61	ng		99
84) 2-Methylnaphthalene	10.272	142	456355	314.78	ng		98
85) Tetradecane	10.386	57	320166	246.94	ng		100
86) Pentadecane	10.870	57	292398	273.14	ng		100
87) Biphenyl	10.669	154	561252	196.78	ng		97
88) Acenaphthylene	11.169	152	576614	198.43	ng		99
89) Acenaphthene	11.278	153	435607	192.30	ng		100
90) Dibenzofuran	11.449	168	557629	211.91	ng		96
91) Fluorene	11.809	166	374780	213.08	ng		96
92) Carbazole	14.222	167	206313	256.90	ng	#	100
93) TPH c4-c9	5.050	TIC	38366226m	9903.24	ng		
94) TPH C5-C8	5.000	TIC	19768347m	5390.42	ng		
95) TPH c10-c15	10.050	TIC	32423273m	4164.22	ng		
96) TPH C9-C15	10.000	TIC	43085150m	4097.83	ng		

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070908.D
Acq On : 09 Jul 2024 03:19 pm
Operator : KAI
Sample : SEQ-CAL7
Misc : 1, dual bed, 200ng
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 10 10:20:07 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:06 2024
Response via : Initial Calibration

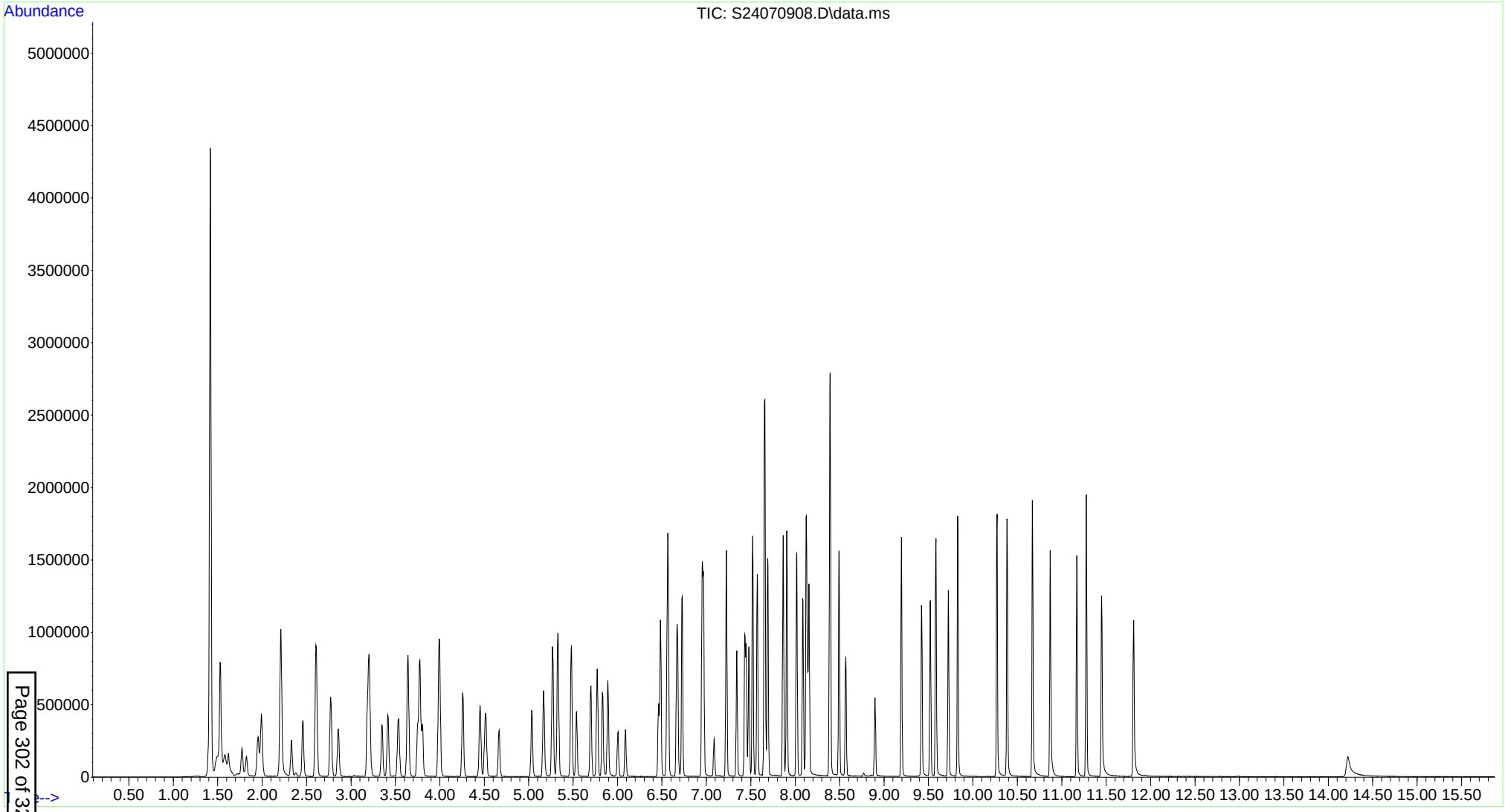
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070908.D
Acq On : 09 Jul 2024 03:19 pm
Operator : KAI
Sample : SEQ-CAL7
Misc : 1, dual bed, 200ng
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 10 10:20:07 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:06 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070909.D
Acq On : 09 Jul 2024 03:50 pm
Operator : KAI
Sample : SEQ-CAL8
Misc : 1, dual bed, 500ng
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 10 10:20:17 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:15 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.988	96	223295	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	160956	100.00	ng	#	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	86194	100.00	ng	#	0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.749	65	435597	547.83	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 547.83%#				
40) Toluene-d8	5.270	98	1231536	585.56	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 585.56%#				
59) Bromofluorobenzene	7.343	174	358656	567.92	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 567.92%#				
Target Compounds							Qvalue
3) Bromomethane	1.766	94	265	0.68	ng	#	50
4) Vinyl Chloride	1.622	62	309746	570.13	ng		99
5) Chloromethane	1.562	52	1597	9.32	ng	#	72
6) Dichlorodifluoromethan...	1.533	85	35	0.06	ng	#	42
7) Trichlorofluoromethane...	1.953	101	133	0.13	ng	#	18
9) 1,1-Dichloroethene	2.208	96	281930	608.18	ng		98
11) 1,1,2-Trichlorotrifluo...	2.211	101	332684	569.57	ng		100
12) Carbon disulfide	2.329	76	484	0.48	ng	#	92
13) Acetone	2.214	58	8473	17.36	ng	#	1
14) trans-1,2-Dichloroethene	2.612	61	472726	552.39	ng		98
15) Methyl-t-butyl ether	2.606	73	1007565	569.53	ng		100
16) 1,1-Dichloroethane	2.857	63	591060	535.00	ng		99
17) Hexane	2.772	57	311	0.33	ng	#	70
18) cis-1,2-Dichloroethene	2.612	96	318183	559.70	ng		98
19) 2-Butanone	3.201	72	3220	8.46	ng	#	39
21) Chloroform	3.415	83	606246	532.99	ng		100
24) 1,2-Dichloroethane	3.803	62	531126	537.48	ng		99
25) 1,1,1-Trichloroethane	3.536	97	550797	600.24	ng		99
27) Carbon Tetrachloride	3.644	117	475365	645.53	ng		99
28) Benzene	3.774	77	323830	523.51	ng		97
30) 1,2-Dichloropropane	4.459	63	71	0.11	ng	#	21
31) Trichloroethene	4.258	130	351013	549.44	ng		100
32) Heptane	3.988	71	2389	3.67	ng		93
34) 1,4-Dioxane	4.506	88	272160	563.83	ng		97
36) 4-Methyl-2-pentanone (...	5.904	58	435	0.61	ng	#	64
37) trans-1,3-Dichloropropene	5.538	75	37	0.06	ng	#	1
38) 1,1,2-Trichloroethane	5.700	99	207223	568.25	ng		100
41) Toluene	5.328	92	848061	573.81	ng		99
42) 1,3-Dichloropropane	5.834	76	260	0.24	ng	#	61
43) Octane	5.484	57	112	0.22	ng		80
44) 2-Hexanone	5.904	58	435	0.75	ng	#	46
45) Dibromochloromethane	6.003	129	65	0.16	ng	#	11
46) 1,2-Dibromoethane (EDB)	6.089	107	340787	577.90	ng		98
47) Tetrachloroethene	5.770	131	282096	516.56	ng		99
48) 1,1,1,2-Tetrachloroethane	6.557	131	307541	623.58	ng		100
49) Chlorobenzene	6.483	112	939452	558.36	ng		99
50) Ethylbenzene	6.569	106	498347	612.44	ng		99
51) p & m-Xylene	6.674	106	612067	614.63	ng		99
53) Nonane	6.728	57	745	0.76	ng		96

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070909.D
Acq On : 09 Jul 2024 03:50 pm
Operator : KAI
Sample : SEQ-CAL8
Misc : 1, dual bed, 500ng
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 10 10:20:17 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:15 2024
Response via : Initial Calibration

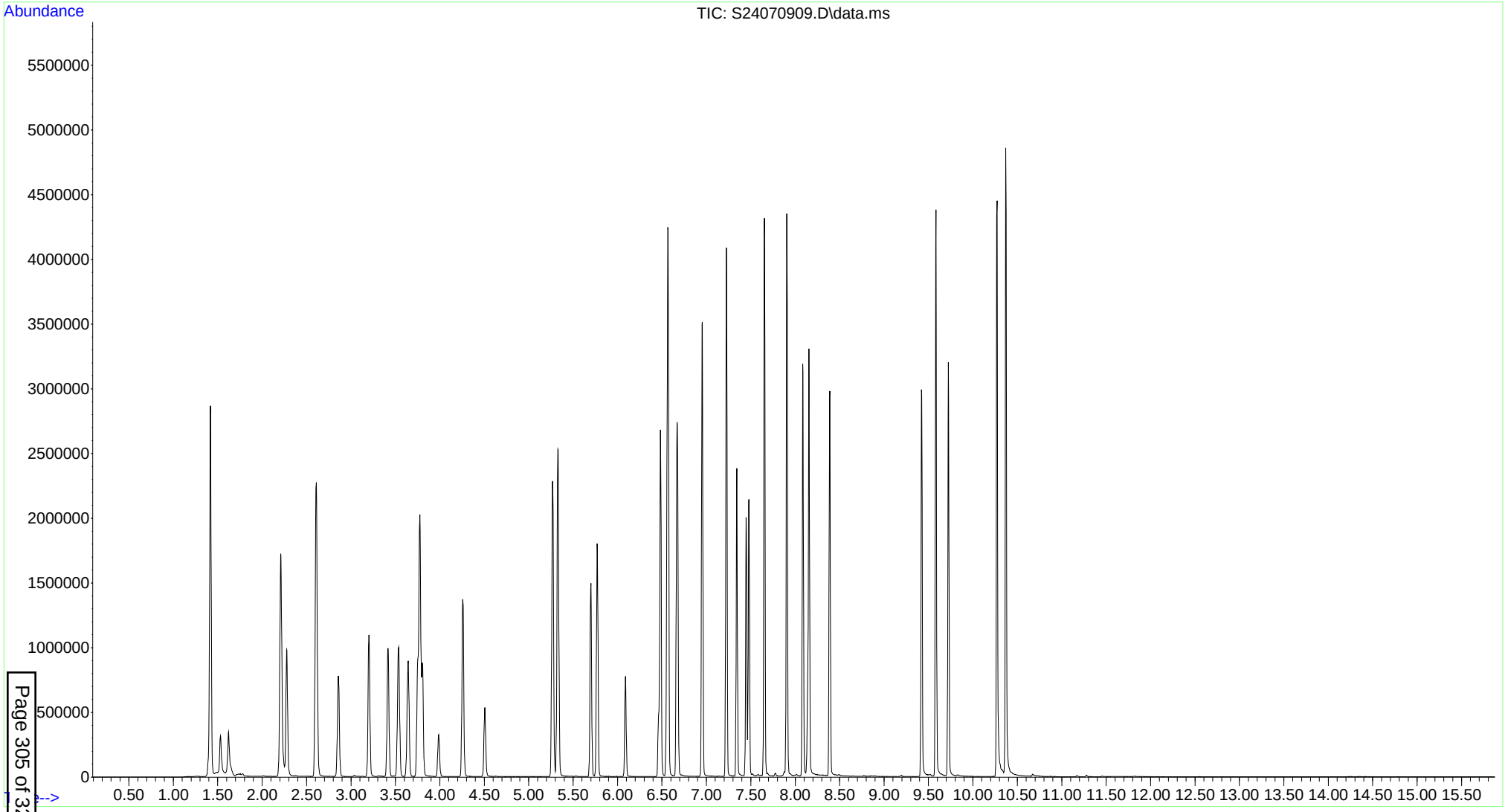
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
54) Styrene	6.954	104	29552	20.61	ng	#	1
55) 1,1,2,2-Tetrachloroethane	7.448	83	593918	591.01	ng		98
56) o-Xylene	6.951	106	581013	617.53	ng	#	95
57) 1,2,3-Trichloropropane	7.477	75	555704	566.09	ng		97
58) Isopropylbenzene	7.225	105	1646077	632.22	ng		99
61) Bromobenzene	7.435	156	516	0.71	ng	#	1
62) n-Propylbenzene	7.521	91	4366	1.27	ng		91
63) 2-Chlorotoluene	7.578	91	1827	0.83	ng		97
64) 4-Chlorotoluene	7.655	91	154250	63.53	ng	#	48
65) 1,3,5-Trimethylbenzene	7.655	120	659817	591.15	ng		98
66) Decane	7.690	57	2788	2.01	ng		95
67) tert-Butylbenzene	7.843	119	88	0.04	ng	#	14
68) 1,2,4-Trimethylbenzene	7.906	120	604614	570.21	ng		97
69) sec-Butylbenzene	8.018	105	5726	1.97	ng	#	81
70) 1,3-Dichlorobenzene	8.088	146	746157	587.60	ng		99
71) p-Isopropyl toluene	8.123	119	5925	2.27	ng	#	83
72) 1,4-Dichlorobenzene	8.155	146	760571	549.34	ng		100
73) 1,2-Dichlorobenzene	8.390	146	728015	515.46	ng		99
74) n-Butylbenzene	8.393	91	5623	2.41	ng		97
75) Undecane	8.495	57	1911	1.37	ng		88
76) 1,2-Dibromo-3-chloropr...	8.896	157	582	1.75	ng		90
77) Hexachloroethane	8.565	201	33	0.15	ng	#	18
78) Dodecane	9.192	57	2665	2.67	ng		85
79) 1,2,4-Trichlorobenzene	9.425	180	548425	564.43	ng		99
80) Naphthalene	9.584	128	1951268	582.68	ng		99
81) Hexachlorobutadiene	9.520	225	2204	3.63	ng		95
82) 1,2,3-Trichlorobenzene	9.724	180	559183	554.67	ng		97
83) Tridecane	9.829	57	2682	1.92	ng		96
84) 2-Methylnaphthalene	10.272	142	1197649	834.22	ng		99
85) Tetradecane	10.383	57	6639	4.76	ng	#	20
86) Pentadecane	10.873	57	1542	1.23	ng	#	69
87) Biphenyl	10.673	154	11667	6.14	ng	#	72
88) Acenaphthylene	11.169	152	6184	3.94	ng	#	61
89) Acenaphthene	11.277	153	4281	3.10	ng		99
90) Dibenzofuran	11.453	168	7745	4.80	ng	#	39
91) Fluorene	11.812	166	3380	4.19	ng	#	69
92) Carbazole	14.273	167	3555	17.38	ng	#	100
93) TPH c4-c9	5.050	TIC	54721474m	15314.41	ng		
94) TPH C5-C8	5.000	TIC	23819853m	6820.57	ng		
95) TPH c10-c15	10.050	TIC	28887177m	3713.30	ng		
96) TPH C9-C15	10.000	TIC	37243818m	3920.38	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070909.D
Acq On : 09 Jul 2024 03:50 pm
Operator : KAI
Sample : SEQ-CAL8
Misc : 1, dual bed, 500ng
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 10 10:20:17 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:15 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070918.D
Acq On : 09 Jul 2024 09:34 pm
Operator : KAI
Sample : SEQ-CAL9
Misc : 1, dual bed, 1000ng
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 10 10:20:27 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:26 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.984	96	216854	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	151823	100.00	ng	#	0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	80456	100.00	ng	#	0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.746	65	791941	1013.46	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 1013.46%#				
40) Toluene-d8	5.267	98	2169356	1070.62	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 1070.62%#				
59) Bromofluorobenzene	7.340	174	616848	1018.23	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 1018.23%#				
Target Compounds							Qvalue
3) Bromomethane	1.762	94	455	1.20	ng	#	45
4) Vinyl Chloride	1.619	62	553106	1030.24	ng		99
5) Chloromethane	1.568	52	1801	10.82	ng	#	1
6) Dichlorodifluoromethan...	1.533	85	473	0.81	ng	#	68
7) Trichlorofluoromethane...	1.957	101	359	0.36	ng		98
9) 1,1-Dichloroethene	2.205	96	542577	1173.47	ng		99
11) 1,1,2-Trichlorotrifluo...	2.208	101	624698	1082.46	ng		100
12) Carbon disulfide	2.329	76	604	0.61	ng	#	88
13) Acetone	2.211	58	17748	37.45	ng	#	1
14) trans-1,2-Dichloroethene	2.609	61	885896	1052.16	ng		99
15) Methyl-t-butyl ether	2.603	73	1787986	1022.90	ng		99
16) 1,1-Dichloroethane	2.854	63	1095677	1012.35	ng		99
17) Hexane	2.784	57	65	0.07	ng	#	70
18) cis-1,2-Dichloroethene	2.609	96	587849	1049.11	ng		98
19) 2-Butanone	3.198	72	6301	17.05	ng	#	39
21) Chloroform	3.415	83	1117804	1003.65	ng		99
24) 1,2-Dichloroethane	3.800	62	974107	1005.62	ng		99
25) 1,1,1-Trichloroethane	3.532	97	1020414	1117.05	ng		100
27) Carbon Tetrachloride	3.641	117	905426	1221.62	ng		99
28) Benzene	3.771	77	584779	965.87	ng		98
31) Trichloroethene	4.255	130	627241	998.64	ng		100
32) Heptane	3.981	71	2030	3.21	ng	#	75
34) 1,4-Dioxane	4.503	88	473939	914.75	ng		98
36) 4-Methyl-2-pentanone (...	5.888	58	37	0.05	ng	#	40
38) 1,1,2-Trichloroethane	5.697	99	364632	1012.32	ng		100
41) Toluene	5.328	92	1484565	1039.33	ng		100
42) 1,3-Dichloropropane	5.831	76	29	0.03	ng	#	1
44) 2-Hexanone	5.888	58	37	0.07	ng	#	46
46) 1,2-Dibromoethane (EDB)	6.085	107	609437	1074.71	ng		99
47) Tetrachloroethene	5.767	131	492773	952.68	ng		98
48) 1,1,1,2-Tetrachloroethane	6.557	131	547875	1142.42	ng		99
49) Chlorobenzene	6.483	112	1632277	1013.71	ng		100
50) Ethylbenzene	6.569	106	871714	1104.68	ng		99
51) p & m-Xylene	6.671	106	1067617	1104.92	ng		100
53) Nonane	6.725	57	254	0.28	ng	#	46
54) Styrene	6.951	104	50773	37.54	ng	#	1
55) 1,1,2,2-Tetrachloroethane	7.448	83	1021521	1053.70	ng		98
56) o-Xylene	6.951	106	1019219	1115.66	ng	#	94
57) 1,2,3-Trichloropropane	7.477	75	953329	1012.83	ng		98

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070918.D
Acq On : 09 Jul 2024 09:34 pm
Operator : KAI
Sample : SEQ-CAL9
Misc : 1, dual bed, 1000ng
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 10 10:20:27 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:26 2024
Response via : Initial Calibration

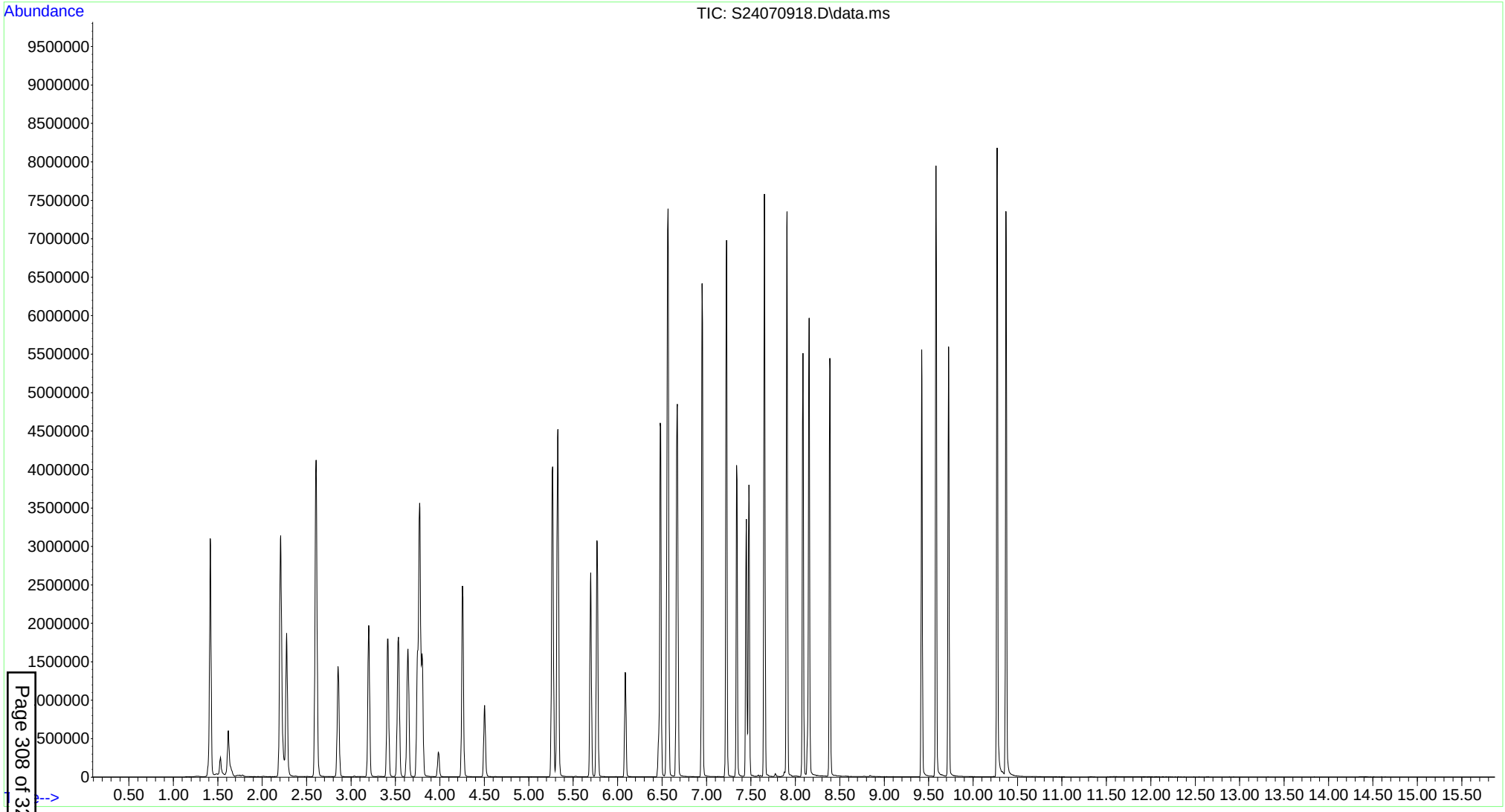
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
58) Isopropylbenzene	7.225	105	2824014	1113.09	ng		99
62) n-Propylbenzene	7.521	91	3889	1.21	ng		96
63) 2-Chlorotoluene	7.585	91	1258	0.61	ng	#	43
64) 4-Chlorotoluene	7.652	91	267681	118.11	ng	#	47
65) 1,3,5-Trimethylbenzene	7.652	120	1146442	1075.87	ng		97
66) Decane	7.690	57	2006	1.55	ng		89
67) tert-Butylbenzene	7.849	119	33	0.02	ng	#	14
68) 1,2,4-Trimethylbenzene	7.906	120	1051526	1044.10	ng		96
69) sec-Butylbenzene	8.015	105	3737	1.38	ng		97
70) 1,3-Dichlorobenzene	8.085	146	1287442	1062.89	ng		99
71) p-Isopropyl toluene	8.126	119	285	0.12	ng	#	1
72) 1,4-Dichlorobenzene	8.155	146	1328316	1015.30	ng		100
73) 1,2-Dichlorobenzene	8.387	146	1253994	947.53	ng		100
74) n-Butylbenzene	8.400	91	1253	0.58	ng	#	53
75) Undecane	8.492	57	179	0.14	ng	#	28
77) Hexachloroethane	8.568	201	141	0.69	ng	#	18
78) Dodecane	9.199	57	133	0.14	ng	#	61
79) 1,2,4-Trichlorobenzene	9.422	180	953743	1034.91	ng		98
80) Naphthalene	9.584	128	3403722	958.26	ng		99
82) 1,2,3-Trichlorobenzene	9.724	180	994190	969.14	ng		99
83) Tridecane	9.832	57	38	0.03	ng	#	1
84) 2-Methylnaphthalene	10.272	142	2128729	1466.02	ng		99
85) Tetradecane	10.380	57	5380	4.13	ng	#	1
87) Biphenyl	10.673	154	624	0.36	ng	#	41
88) Acenaphthylene	11.169	152	31	0.02	ng	#	61
90) Dibenzofuran	11.453	168	30	0.02	ng	#	39
93) TPH c4-c9	5.050	TIC	95553290m	26245.24	ng		
94) TPH C5-C8	5.000	TIC	42996711m	13189.72	ng		
95) TPH c10-c15	10.050	TIC	48634236m	6697.55	ng		
96) TPH C9-C15	10.000	TIC	62965779m	7100.64	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070918.D
Acq On : 09 Jul 2024 09:34 pm
Operator : KAI
Sample : SEQ-CAL9
Misc : 1, dual bed, 1000ng
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 10 10:20:27 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:26 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070919.D
Acq On : 09 Jul 2024 10:05 pm
Operator : KAI
Sample : SEQ-CALA
Misc : 1, dual bed, 2000ng
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 10 10:20:36 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:35 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.988	96	219684	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	155617	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	73291	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.749	65	1669831	2106.23	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 2106.23%#				
40) Toluene-d8	5.271	98	4796662	2291.55	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 2291.55%#				
59) Bromofluorobenzene	7.343	174	1420064	2282.32	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 2282.32%#				
Target Compounds							Qvalue
3) Bromomethane	1.766	94	125	0.33	ng	#	3
4) Vinyl Chloride	1.623	62	124	0.23	ng	#	79
5) Chloromethane	1.562	52	962	5.71	ng		98
9) 1,1-Dichloroethene	2.208	96	1154380	2417.90	ng		99
11) 1,1,2-Trichlorotrifluo...	2.208	101	2813	4.77	ng	#	23
12) Carbon disulfide	2.336	76	77	0.08	ng	#	74
13) Acetone	2.211	58	5420	11.29	ng	#	1
14) trans-1,2-Dichloroethene	2.609	61	1924226	2242.93	ng		99
15) Methyl-t-butyl ether	2.606	73	634	0.36	ng	#	84
16) 1,1-Dichloroethane	2.858	63	700	0.64	ng	#	50
17) Hexane	2.778	57	74	0.08	ng	#	70
18) cis-1,2-Dichloroethene	2.613	96	1284658	2250.87	ng		98
19) 2-Butanone	3.201	72	11703	31.26	ng	#	39
21) Chloroform	3.415	83	2372962	2102.32	ng		100
24) 1,2-Dichloroethane	3.774	62	52522	53.49	ng	#	81
25) 1,1,1-Trichloroethane	3.542	97	66	0.07	ng	#	24
27) Carbon Tetrachloride	3.650	117	31	0.04	ng	#	2
28) Benzene	3.774	77	1303519	2135.68	ng		99
31) Trichloroethene	4.258	130	1371349	2155.55	ng		100
32) Heptane	3.988	71	2189	3.42	ng	#	80
34) 1,4-Dioxane	4.507	88	207	0.42	ng	#	1
36) 4-Methyl-2-pentanone (...	5.891	58	78	0.11	ng	#	40
38) 1,1,2-Trichloroethane	5.697	99	144	0.39	ng	#	39
41) Toluene	5.328	92	3338687	2267.67	ng		98
44) 2-Hexanone	5.891	58	78	0.14	ng	#	46
45) Dibromochloromethane	6.009	129	369	0.93	ng	#	11
46) 1,2-Dibromoethane (EDB)	6.089	107	297	0.51	ng	#	58
47) Tetrachloroethene	5.770	131	1074250	2036.93	ng		99
48) 1,1,1,2-Tetrachloroethane	6.563	131	298	0.60	ng	#	62
49) Chlorobenzene	6.480	112	1262	0.76	ng		94
50) Ethylbenzene	6.569	106	1970785	2408.57	ng		99
51) p & m-Xylene	6.671	106	2427199	2422.53	ng		100
53) Nonane	6.725	57	1443	1.53	ng		93
54) Styrene	6.955	104	117621	84.83	ng	#	1
55) 1,1,2,2-Tetrachloroethane	7.448	83	1240	1.24	ng	#	89
56) o-Xylene	6.955	106	2348199	2475.90	ng	#	90
57) 1,2,3-Trichloropropane	7.477	75	2205	2.28	ng		91
58) Isopropylbenzene	7.228	105	4971	1.89	ng		99
62) n-Propylbenzene	7.521	91	1080	0.37	ng	#	69

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070919.D
Acq On : 09 Jul 2024 10:05 pm
Operator : KAI
Sample : SEQ-CALA
Misc : 1, dual bed, 2000ng
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 10 10:20:36 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:35 2024
Response via : Initial Calibration

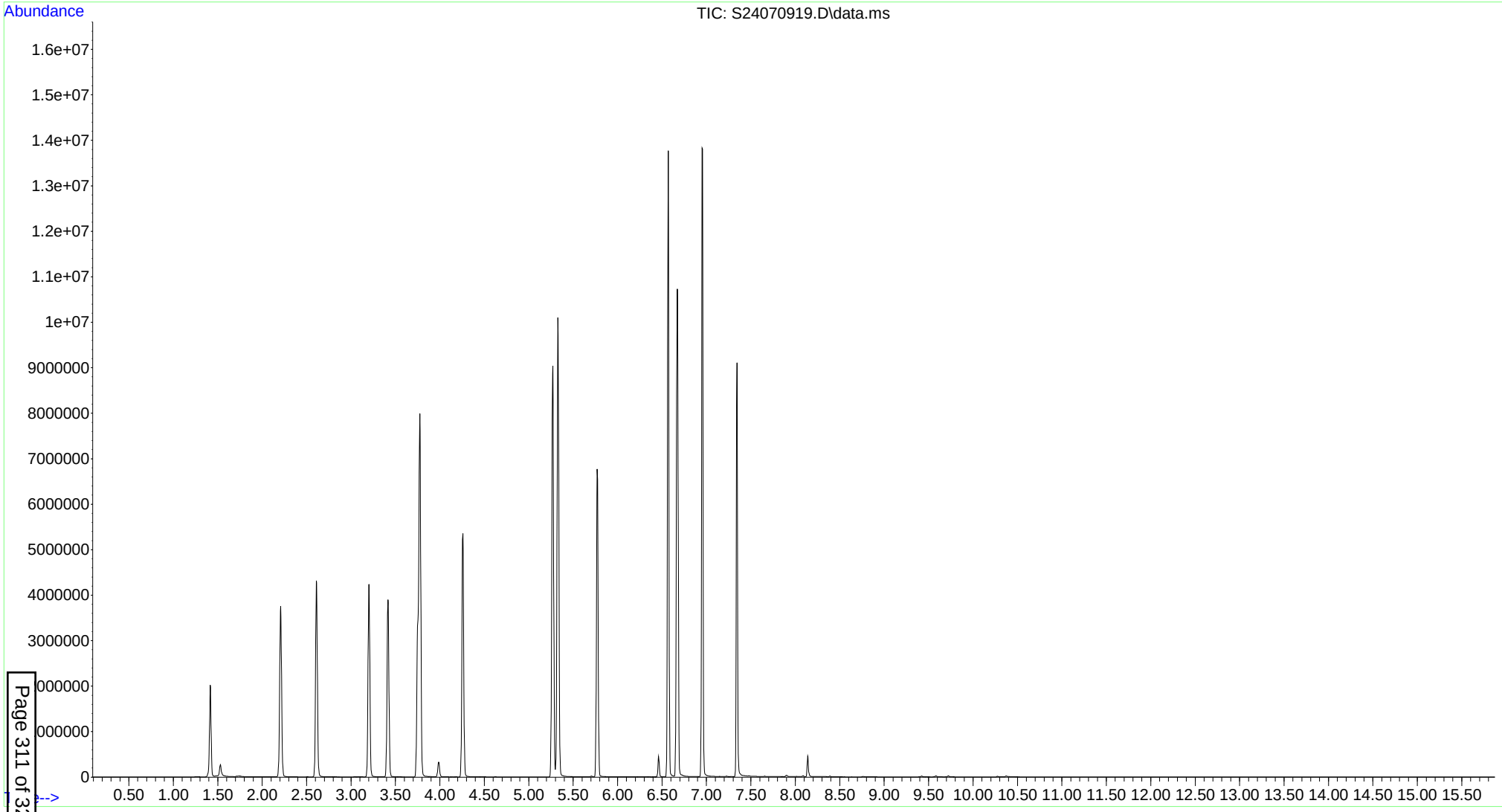
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
63) 2-Chlorotoluene	7.572	91	904	0.48	ng	#	43
64) 4-Chlorotoluene	7.652	91	1028	0.50	ng	#	47
65) 1,3,5-Trimethylbenzene	7.655	120	1939	1.98	ng		97
66) Decane	7.690	57	245	0.21	ng	#	36
67) tert-Butylbenzene	7.865	119	435	0.23	ng	#	71
68) 1,2,4-Trimethylbenzene	7.906	120	2469	2.68	ng	#	1
69) sec-Butylbenzene	8.015	105	451	0.18	ng	#	59
70) 1,3-Dichlorobenzene	8.088	146	4279	3.85	ng		86
71) p-Isopropyl toluene	8.123	119	96	0.04	ng	#	51
72) 1,4-Dichlorobenzene	8.155	146	6030	5.05	ng		99
73) 1,2-Dichlorobenzene	8.390	146	5363	4.47	ng		93
74) n-Butylbenzene	8.397	91	505	0.25	ng	#	33
79) 1,2,4-Trichlorobenzene	9.425	180	9088	10.78	ng		95
80) Naphthalene	9.584	128	20189	6.45	ng		98
82) 1,2,3-Trichlorobenzene	9.724	180	8816	9.66	ng		98
84) 2-Methylnaphthalene	10.275	142	9214	6.62	ng		98
85) Tetradecane	10.370	57	287	0.24	ng	#	1
93) TPH c4-c9	5.050	TIC	109651958m	33022.51	ng		
94) TPH C5-C8	5.000	TIC	53820687m	18124.14	ng		
95) TPH c10-c15	10.050	TIC	1111442m	168.02	ng		
96) TPH C9-C15	10.000	TIC	1492001m	184.70	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070919.D
Acq On : 09 Jul 2024 10:05 pm
Operator : KAI
Sample : SEQ-CALA
Misc : 1, dual bed, 2000ng
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 10 10:20:36 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:35 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070920.D
Acq On : 09 Jul 2024 10:35 pm
Operator : KAI
Sample : SEQ-CALB
Misc : 1, dual bed, 5000ng
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 10 10:20:44 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:43 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.987	96	215701	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	153768	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	77372	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.752	65	4208135	5377.36	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 5377.36%#				
40) Toluene-d8	5.270	98	10585934	5044.59	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 5044.59%#				
59) Bromofluorobenzene	7.343	174	3503693	5619.50	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 5619.50%#				
Target Compounds							Qvalue
3) Bromomethane	1.765	94	488	1.30	ng		96
4) Vinyl Chloride	1.629	62	32	0.06	ng	#	79
5) Chloromethane	1.565	52	1273	7.69	ng	#	79
9) 1,1-Dichloroethene	2.208	96	2955816	6176.35	ng		97
10) Methylene Chloride	2.463	84	213	0.36	ng	#	25
11) 1,1,2-Trichlorotrifluo...	2.205	101	6770	11.69	ng	#	23
12) Carbon disulfide	2.332	76	36	0.04	ng	#	74
13) Acetone	2.214	58	239	0.51	ng	#	1
14) trans-1,2-Dichloroethene	2.612	61	4858582	5698.64	ng		97
15) Methyl-t-butyl ether	2.609	73	162	0.09	ng	#	84
17) Hexane	2.768	57	100	0.11	ng	#	70
18) cis-1,2-Dichloroethene	2.612	96	3320844	5852.53	ng		99
19) 2-Butanone	3.201	72	31360	85.30	ng	#	39
21) Chloroform	3.418	83	5873767	5272.97	ng		98
24) 1,2-Dichloroethane	3.774	62	130129	134.97	ng	#	80
28) Benzene	3.774	77	2943741	4870.76	ng		91
30) 1,2-Dichloropropane	4.449	63	132	0.21	ng	#	56
31) Trichloroethene	4.261	130	3504233	5566.54	ng		99
32) Heptane	3.991	71	2065	3.28	ng	#	72
36) 4-Methyl-2-pentanone (...	5.901	58	78	0.11	ng	#	40
38) 1,1,2-Trichloroethane	5.703	99	68	0.19	ng	#	40
41) Toluene	5.331	92	7081459	4787.53	ng		91
43) Octane	5.480	57	64	0.13	ng	#	1
44) 2-Hexanone	5.901	58	78	0.14	ng	#	46
45) Dibromochloromethane	5.996	129	373	0.95	ng	#	11
47) Tetrachloroethene	5.773	131	2738625	5245.59	ng		99
48) 1,1,1,2-Tetrachloroethane	6.563	131	192	0.39	ng	#	2
49) Chlorobenzene	6.486	112	399	0.24	ng	#	42
50) Ethylbenzene	6.572	106	4315780	5231.04	ng		99
51) p & m-Xylene	6.674	106	5336997	5279.25	ng		100
53) Nonane	6.725	57	2807	3.01	ng		98
54) Styrene	6.954	104	276628	201.92	ng	#	1
55) 1,1,2,2-Tetrachloroethane	7.445	83	315	0.32	ng	#	49
56) o-Xylene	6.954	106	5176089	5394.84	ng	#	81
57) 1,2,3-Trichloropropane	7.473	75	1708	1.79	ng		93
58) Isopropylbenzene	7.228	105	4973	1.91	ng	#	86
62) n-Propylbenzene	7.521	91	1031	0.33	ng	#	45
63) 2-Chlorotoluene	7.578	91	751	0.38	ng	#	43
64) 4-Chlorotoluene	7.661	91	547	0.25	ng	#	47

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070920.D
Acq On : 09 Jul 2024 10:35 pm
Operator : KAI
Sample : SEQ-CALB
Misc : 1, dual bed, 5000ng
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 10 10:20:44 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:43 2024
Response via : Initial Calibration

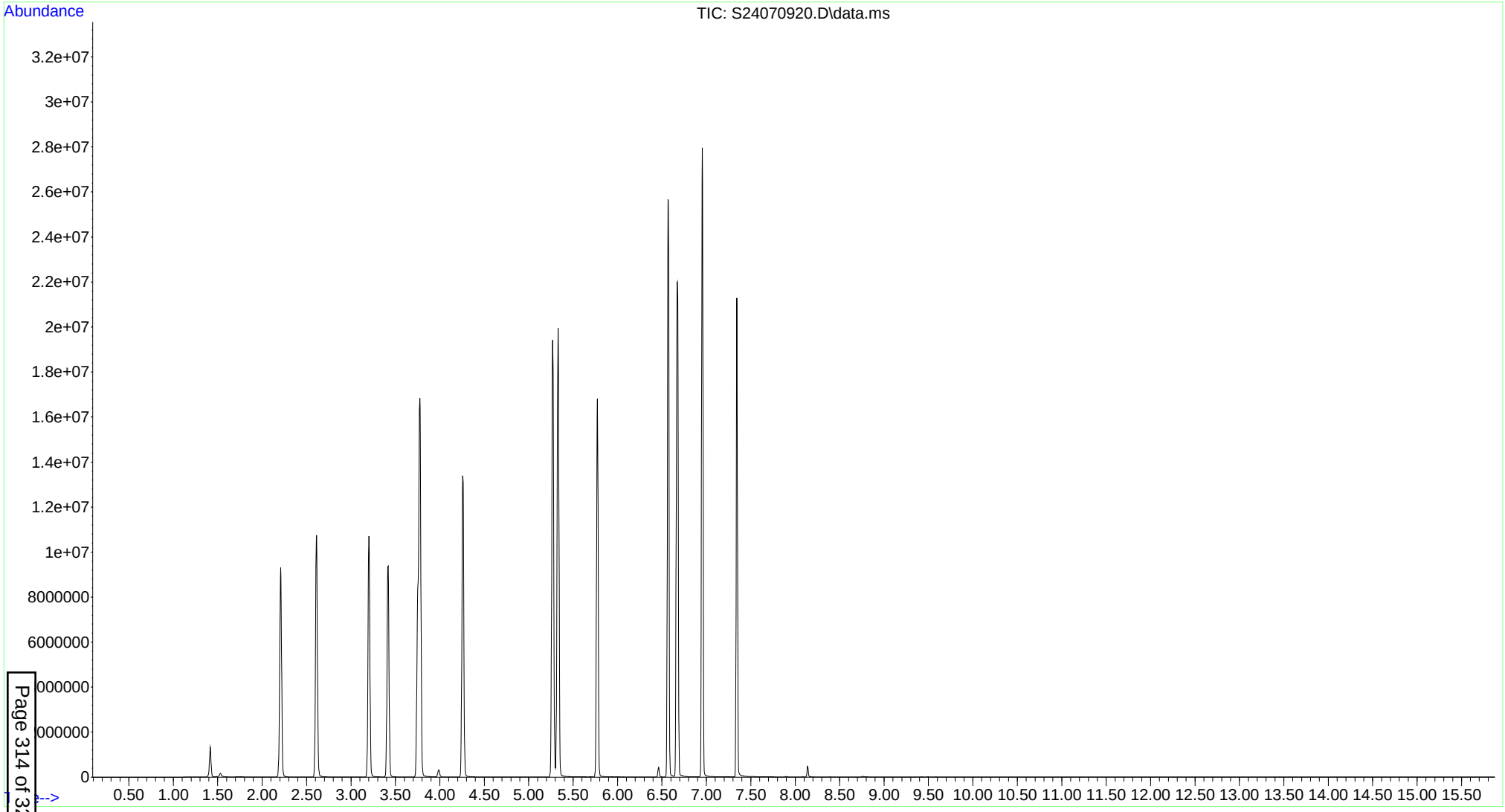
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
65) 1,3,5-Trimethylbenzene	7.655	120	1125	1.09	ng		88
66) Decane	7.690	57	229	0.18	ng	#	36
67) tert-Butylbenzene	7.862	119	191	0.10	ng	#	1
68) 1,2,4-Trimethylbenzene	7.903	120	1110	1.14	ng	#	1
69) sec-Butylbenzene	8.021	105	1497	0.57	ng	#	64
70) 1,3-Dichlorobenzene	8.088	146	1903	1.62	ng		94
71) p-Isopropyl toluene	8.129	119	69	0.03	ng	#	1
72) 1,4-Dichlorobenzene	8.158	146	2581	2.05	ng		90
73) 1,2-Dichlorobenzene	8.390	146	2795	2.21	ng		90
74) n-Butylbenzene	8.368	91	1046	0.50	ng	#	36
79) 1,2,4-Trichlorobenzene	9.425	180	3325	3.74	ng		91
80) Naphthalene	9.587	128	6447	1.95	ng	#	94
82) 1,2,3-Trichlorobenzene	9.724	180	2662	2.76	ng		98
84) 2-Methylnaphthalene	10.275	142	1726	1.18	ng		98
85) Tetradecane	10.389	57	73	0.06	ng	#	20
93) TPH c4-c9	5.050	TIC	251109024m	71634.60	ng		
94) TPH C5-C8	5.000	TIC	125457163m	40019.38	ng		
95) TPH c10-c15	10.050	TIC	979590m	140.28	ng		
96) TPH C9-C15	10.000	TIC	1382520m	162.12	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070920.D
Acq On : 09 Jul 2024 10:35 pm
Operator : KAI
Sample : SEQ-CALB
Misc : 1, dual bed, 5000ng
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 10 10:20:44 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:43 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070921.D
Acq On : 09 Jul 2024 11:06 pm
Operator : KAI
Sample : SEQ-CALC
Misc : 1, dual bed, 10000ng
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 10 10:20:54 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:53 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.988	96	215280	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	166353	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.139	152	81403	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.752	65	8163412	10380.78	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 10380.78%#				
40) Toluene-d8	5.267	98	16810653	7398.86	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 7398.86%#				
59) Bromofluorobenzene	7.346	174	6792737	9958.35	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 9958.35%#				
Target Compounds							Qvalue
3) Bromomethane	1.769	94	193	0.51	ng		87
4) Vinyl Chloride	1.616	62	289	0.54	ng	#	79
5) Chloromethane	1.562	52	1646	9.96	ng	#	82
9) 1,1-Dichloroethene	2.208	96	6114616	12533.76	ng		92
10) Methylene Chloride	2.457	84	542	0.91	ng		93
11) 1,1,2-Trichlorotrifluo...	2.208	101	14543	25.15	ng	#	23
12) Carbon disulfide	2.332	76	385	0.39	ng	#	74
13) Acetone	2.221	58	635	1.35	ng	#	1
14) trans-1,2-Dichloroethene	2.612	61	9300905	10793.29	ng		91
15) Methyl-t-butyl ether	2.612	73	181	0.10	ng	#	1
17) Hexane	2.768	57	204	0.23	ng	#	70
18) cis-1,2-Dichloroethene	2.612	96	6749729	11736.80	ng		99
19) 2-Butanone	3.201	72	61122	166.59	ng	#	39
21) Chloroform	3.415	83	11255918	10074.37	ng		96
24) 1,2-Dichloroethane	3.778	62	242882	252.41	ng	#	80
27) Carbon Tetrachloride	3.641	117	357	0.47	ng		83
28) Benzene	3.778	77	5142491	8550.05	ng	#	70
30) 1,2-Dichloropropane	4.452	63	1027	1.67	ng	#	28
31) Trichloroethene	4.258	130	7025914	11068.60	ng		99
32) Heptane	3.988	71	2217	3.53	ng	#	32
33) Bromodichloromethane	4.666	83	137	0.23	ng	#	18
36) 4-Methyl-2-pentanone (...	5.898	58	148	0.21	ng	#	40
37) trans-1,3-Dichloropropene	5.535	75	34	0.06	ng	#	42
38) 1,1,2-Trichloroethane	5.704	99	117	0.33	ng	#	1
41) Toluene	5.334	92	12666353	7953.01	ng	#	68
42) 1,3-Dichloropropane	5.780	76	31	0.03	ng	#	1
44) 2-Hexanone	5.898	58	148	0.25	ng	#	46
45) Dibromochloromethane	5.980	129	1127	2.66	ng	#	11
46) 1,2-Dibromoethane (EDB)	6.098	107	259	0.41	ng	#	3
47) Tetrachloroethene	5.774	131	5888446	10379.17	ng		100
48) 1,1,1,2-Tetrachloroethane	6.569	131	113	0.21	ng	#	2
49) Chlorobenzene	6.483	112	361	0.20	ng	#	42
50) Ethylbenzene	6.569	106	8204691	9153.89	ng		96
51) p & m-Xylene	6.674	106	9857396	8967.53	ng		97
52) Bromoform	7.088	173	185	0.72	ng	#	27
53) Nonane	6.729	57	5875	5.82	ng		96
54) Styrene	6.958	104	521504	351.86	ng	#	1
55) 1,1,2,2-Tetrachloroethane	7.451	83	224	0.21	ng	#	1
56) o-Xylene	6.958	106	9290085	8886.38	ng	#	56

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070921.D
Acq On : 09 Jul 2024 11:06 pm
Operator : KAI
Sample : SEQ-CALC
Misc : 1, dual bed, 10000ng
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 10 10:20:54 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:53 2024
Response via : Initial Calibration

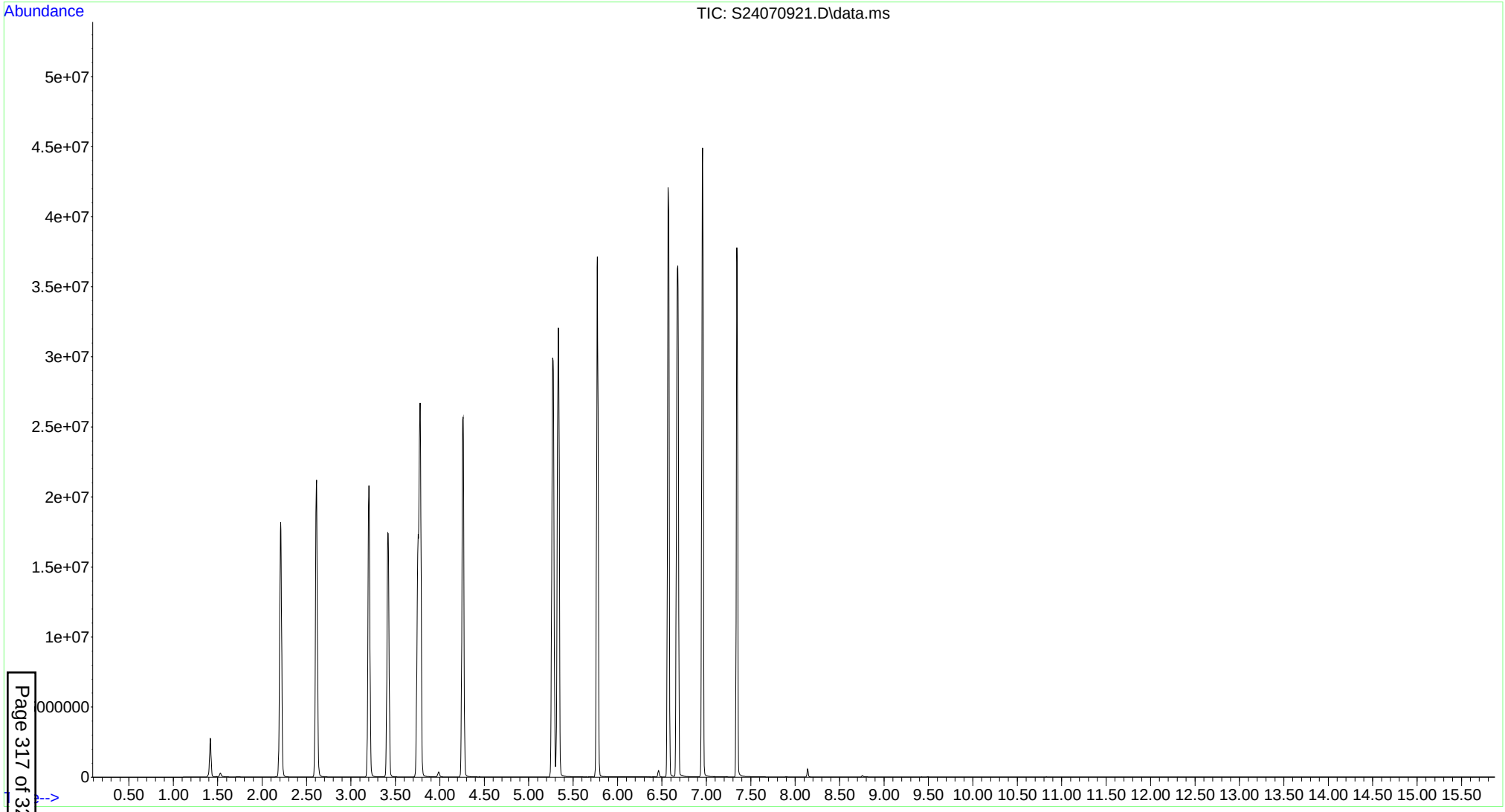
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
57) 1,2,3-Trichloropropane	7.448	75	1559	1.51	ng	#	77
58) Isopropylbenzene	7.225	105	6499	2.31	ng		96
62) n-Propylbenzene	7.521	91	1367	0.42	ng		96
63) 2-Chlorotoluene	7.547	91	382	0.18	ng	#	43
64) 4-Chlorotoluene	7.664	91	983	0.43	ng	#	47
65) 1,3,5-Trimethylbenzene	7.652	120	349	0.32	ng		79
66) Decane	7.687	57	360	0.27	ng	#	36
67) tert-Butylbenzene	7.868	119	42	0.02	ng	#	14
68) 1,2,4-Trimethylbenzene	7.910	120	349	0.34	ng	#	1
69) sec-Butylbenzene	8.015	105	1590	0.58	ng	#	68
70) 1,3-Dichlorobenzene	8.088	146	739	0.60	ng		92
71) p-Isopropyl toluene	8.123	119	151	0.06	ng	#	1
72) 1,4-Dichlorobenzene	8.155	146	785	0.59	ng		91
73) 1,2-Dichlorobenzene	8.393	146	942	0.71	ng		99
74) n-Butylbenzene	8.374	91	1450	0.66	ng	#	44
75) Undecane	8.492	57	45	0.03	ng	#	28
79) 1,2,4-Trichlorobenzene	9.425	180	1738	1.86	ng		92
80) Naphthalene	9.584	128	5046	1.45	ng	#	93
82) 1,2,3-Trichlorobenzene	9.727	180	1708	1.69	ng		86
84) 2-Methylnaphthalene	10.275	142	780	0.50	ng	#	71
85) Tetradecane	10.399	57	80	0.06	ng	#	20
93) TPH c4-c9	5.050	TIC	467369672m	126725.63	ng		
94) TPH C5-C8	5.000	TIC	238009507m	72162.68	ng		
95) TPH c10-c15	10.050	TIC	1410177m	191.94	ng		
96) TPH C9-C15	10.000	TIC	1866620m	208.05	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070921.D
Acq On : 09 Jul 2024 11:06 pm
Operator : KAI
Sample : SEQ-CALC
Misc : 1, dual bed, 10000ng
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 10 10:20:54 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:20:53 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070924.D
Acq On : 10 Jul 2024 12:39 am
Operator : KAI
Sample : SEQ-ICV1
Misc : LCSD
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 10 11:09:54 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 11:08:46 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	3.987	96	217802	100.00	ng	0.00
39) Chlorobenzene-d5	6.461	117	132138	100.00	ng	0.00
60) 1,4-Dichlorobenzene-d4	8.142	152	57604	100.00	ng	0.00
System Monitoring Compounds						
23) 1,2-DCA-d4	3.749	65	39266	49.20	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 49.20%#			
40) Toluene-d8	5.270	98	94124	53.31	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 53.31%#			
59) Bromofluorobenzene	7.343	174	23580	43.54	ng	0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 43.54%#			
Target Compounds						Qvalue
2) Chloroethane	1.826	66	7498	57.82	ng	93
3) Bromomethane	1.772	94	22054	57.01	ng	100
4) Vinyl Chloride	1.622	62	31913	58.99	ng	100
5) Chloromethane	1.581	52	10533	58.28	ng	98
6) Dichlorodifluoromethan...	1.498	85	34316	51.85	ng	99
7) Trichlorofluoromethane...	1.956	101	55947	55.74	ng	98
8) Pentane	1.988	57	8915	58.09	ng	99
9) 1,1-Dichloroethene	2.208	96	25271	50.14	ng	99
10) Methylene Chloride	2.459	84	32663	54.20	ng	99
11) 1,1,2-Trichlorotrifluo...	2.208	101	31802	54.37	ng	99
12) Carbon disulfide	2.329	76	51987	52.36	ng	99
13) Acetone	2.214	58	23999	50.42	ng	98
14) trans-1,2-Dichloroethene	2.612	61	46587	53.09	ng	100
15) Methyl-t-butyl ether	2.603	73	84984	48.28	ng	99
16) 1,1-Dichloroethane	2.857	63	58316	53.57	ng	99
17) Hexane	2.771	57	50168	55.35	ng	100
18) cis-1,2-Dichloroethene	2.612	96	30459	51.60	ng	98
19) 2-Butanone	3.188	72	17502	47.15	ng	96
20) Bromochloromethane	3.351	128	15775	52.48	ng	97
21) Chloroform	3.418	83	58055	51.33	ng	99
22) 2,2-Dichloropropane	3.208	77	44375	53.12	ng	99
24) 1,2-Dichloroethane	3.806	62	50942	52.33	ng	100
25) 1,1,1-Trichloroethane	3.535	97	48329	52.00	ng	100
26) 1,1-Dichloropropene	3.640	75	42922	52.09	ng	100
27) Carbon Tetrachloride	3.640	117	38716	50.76	ng	99
28) Benzene	3.777	77	30558	50.96	ng	99
29) Dibromomethane	4.519	93	20082	50.19	ng	99
30) 1,2-Dichloropropane	4.452	63	31159	49.97	ng	99
31) Trichloroethene	4.258	130	31866	49.18	ng	99
32) Heptane	3.997	71	33096	52.13	ng	99
33) Bromodichloromethane	4.666	83	29425	49.59	ng	100
34) 1,4-Dioxane	4.506	88	20476	42.10	ng	98
35) cis-1,3-Dichloropropene	5.035	75	35526	49.17	ng	99
36) 4-Methyl-2-pentanone (...	5.891	58	25073	35.98	ng	97
37) trans-1,3-Dichloropropene	5.541	75	28088	36.54	ng	100
38) 1,1,2-Trichloroethane	5.700	99	16712	46.13	ng	97
41) Toluene	5.331	92	66241	53.46	ng	100
42) 1,3-Dichloropropane	5.831	76	47109	53.89	ng	98
43) Octane	5.480	57	23392	56.15	ng	97

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070924.D
Acq On : 10 Jul 2024 12:39 am
Operator : KAI
Sample : SEQ-ICV1
Misc : LCSD
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 10 11:09:54 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 11:08:46 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) 2-Hexanone	5.891	58	24317	51.17	ng		98
45) Dibromochloromethane	6.006	129	17243	51.16	ng		99
46) 1,2-Dibromoethane (EDB)	6.088	107	26075	52.40	ng		99
47) Tetrachloroethene	5.770	131	26724	59.11	ng		100
48) 1,1,1,2-Tetrachloroethane	6.560	131	20223	47.70	ng		99
49) Chlorobenzene	6.486	112	69077	49.22	ng		100
50) Ethylbenzene	6.569	106	33685	47.65	ng		100
51) p & m-Xylene	6.674	106	41559	48.01	ng		100
52) Bromoform	7.088	173	10433	50.84	ng		99
53) Nonane	6.728	57	43151	53.79	ng		99
54) Styrene	6.970	104	59070	50.17	ng		100
55) 1,1,2,2-Tetrachloroethane	7.448	83	40578	47.81	ng		99
56) o-Xylene	6.954	106	40688	49.46	ng		99
57) 1,2,3-Trichloropropane	7.480	75	39879	48.61	ng		98
58) Isopropylbenzene	7.225	105	107208	47.95	ng		100
61) Bromobenzene	7.435	156	24650	50.81	ng		94
62) n-Propylbenzene	7.521	91	123900	54.02	ng		100
63) 2-Chlorotoluene	7.575	91	78789	53.49	ng		99
64) 4-Chlorotoluene	7.661	91	86890	53.55	ng		100
65) 1,3,5-Trimethylbenzene	7.655	120	39608	51.48	ng		98
66) Decane	7.693	57	46721	50.39	ng		100
67) tert-Butylbenzene	7.865	119	76757	51.70	ng		98
68) 1,2,4-Trimethylbenzene	7.906	120	37733	52.07	ng		97
69) sec-Butylbenzene	8.018	105	102802	52.93	ng		99
70) 1,3-Dichlorobenzene	8.088	146	45679	52.31	ng		100
71) p-Isopropyl toluene	8.126	119	91770	52.62	ng		99
72) 1,4-Dichlorobenzene	8.158	146	46237	49.28	ng		99
73) 1,2-Dichlorobenzene	8.390	146	47734	50.67	ng		99
74) n-Butylbenzene	8.396	91	84665	54.28	ng		100
75) Undecane	8.495	57	40098	43.14	ng		99
76) 1,2-Dibromo-3-chloropr...	8.899	157	8169	36.65	ng		94
77) Hexachloroethane	8.572	201	7362	50.41	ng		96
78) Dodecane	9.199	57	34210	51.28	ng		99
79) 1,2,4-Trichlorobenzene	9.425	180	33351	50.35	ng		99
80) Naphthalene	9.584	128	99014	40.22	ng		99
81) Hexachlorobutadiene	9.523	225	20291	49.97	ng		97
82) 1,2,3-Trichlorobenzene	9.727	180	34467	48.07	ng		99
83) Tridecane	9.832	57	32474	34.77	ng		99
84) 2-Methylnaphthalene	10.271	142	47153	43.12	ng		100
85) Tetradecane	10.386	57	30814	33.03	ng		99
86) Pentadecane	10.873	57	24880	29.81	ng		98
87) Biphenyl	10.673	154	63752	46.73	ng		94
88) Acenaphthylene	11.172	152	55399	46.09	ng		98
89) Acenaphthene	11.277	153	45560	45.10	ng		99
90) Dibenzofuran	11.452	168	57518	47.34	ng		99
91) Fluorene	11.812	166	30701	45.94	ng		98
92) Carbazole	14.235	167	11087	49.62	ng	#	100
93) TPH c4-c9	5.050	TIC	7960357m	3050.17	ng		
94) TPH C5-C8	5.000	TIC	4202884m	1800.75	ng		
95) TPH c10-c15	10.050	TIC	4659632m	896.25	ng		
96) TPH C9-C15	10.000	TIC	6493665m	1022.79	ng		

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070924.D
Acq On : 10 Jul 2024 12:39 am
Operator : KAI
Sample : SEQ-ICV1
Misc : LCSD
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 10 11:09:54 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 11:08:46 2024
Response via : Initial Calibration

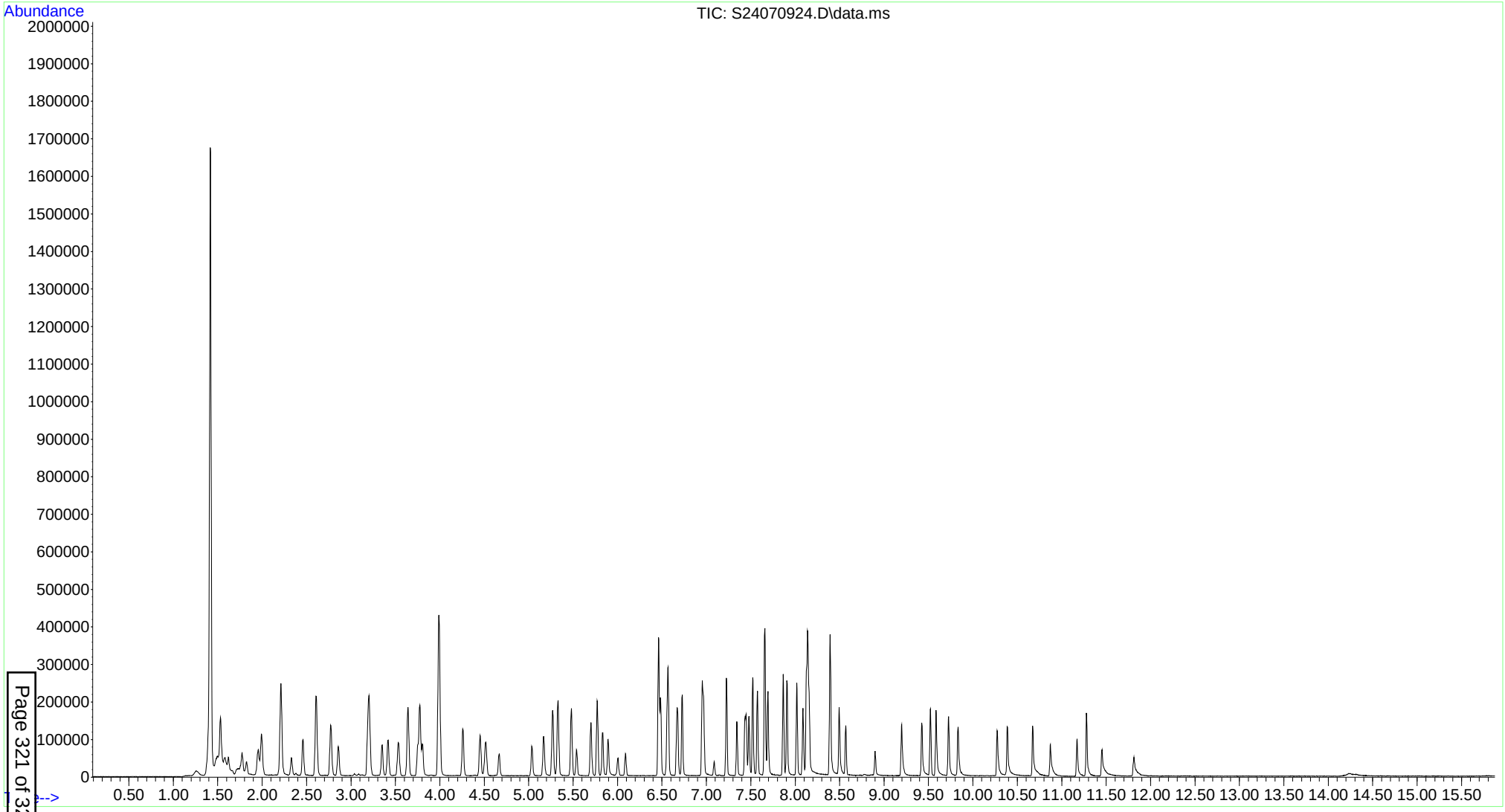
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070924.D
Acq On : 10 Jul 2024 12:39 am
Operator : KAI
Sample : SEQ-ICV1
Misc : LCSD
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 10 11:09:54 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 11:08:46 2024
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070925.D
Acq On : 10 Jul 2024 01:10 am
Operator : KAI
Sample : SEQ-ICB1
Misc : LB
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 10 10:27:56 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:27:04 2024
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Fluorobenzene	3.988	96	222879	100.00	ng		0.00
39) Chlorobenzene-d5	6.461	117	156056	100.00	ng		0.00
60) 1,4-Dichlorobenzene-d4	8.142	152	53000	100.00	ng		0.00
System Monitoring Compounds							
23) 1,2-DCA-d4	3.752	65	81060	99.25	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 99.25%				
40) Toluene-d8	5.271	98	213315	102.30	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 102.30%				
59) Bromofluorobenzene	7.343	174	49702	77.70	ng		0.00
Spiked Amount 100.000	Range 70 - 130		Recovery = 77.70%				
Target Compounds							Qvalue
3) Bromomethane	1.775	94	187	0.48	ng	#	22
5) Chloromethane	1.575	52	108	0.63	ng	#	67
12) Carbon disulfide	2.323	76	327	0.32	ng	#	74
13) Acetone	2.215	58	5473	11.24	ng	#	73
15) Methyl-t-butyl ether	2.606	73	146	0.08	ng	#	84
17) Hexane	2.781	57	71	0.08	ng	#	70
19) 2-Butanone	3.195	72	628	1.65	ng	#	39
21) Chloroform	3.415	83	89	0.08	ng	#	67
24) 1,2-Dichloroethane	3.806	62	328	0.33	ng	#	54
28) Benzene	3.778	77	1628	2.65	ng		98
30) 1,2-Dichloropropane	4.459	63	163	0.26	ng	#	21
31) Trichloroethene	4.265	130	276	0.42	ng	#	22
32) Heptane	3.988	71	2280	3.51	ng	#	73
33) Bromodichloromethane	4.669	83	115	0.19	ng	#	18
34) 1,4-Dioxane	4.507	88	153	0.31	ng		96
35) cis-1,3-Dichloropropene	5.041	75	88	0.12	ng	#	43
36) 4-Methyl-2-pentanone (...	5.891	58	41	0.06	ng	#	40
37) trans-1,3-Dichloropropene	5.541	75	194	0.25	ng	#	42
38) 1,1,2-Trichloroethane	5.700	99	76	0.21	ng	#	40
41) Toluene	5.331	92	1791	1.22	ng		86
42) 1,3-Dichloropropane	5.831	76	506	0.49	ng	#	69
43) Octane	5.474	57	200	0.41	ng	#	8
44) 2-Hexanone	5.891	58	41	0.07	ng	#	46
45) Dibromochloromethane	6.006	129	114	0.29	ng	#	11
46) 1,2-Dibromoethane (EDB)	6.085	107	187	0.32	ng	#	64
47) Tetrachloroethene	5.774	131	360	0.67	ng		88
48) 1,1,1,2-Tetrachloroethane	6.560	131	132	0.26	ng	#	67
49) Chlorobenzene	6.483	112	913	0.55	ng		90
50) Ethylbenzene	6.569	106	720	0.86	ng	#	61
51) p & m-Xylene	6.668	106	911	0.89	ng		96
53) Nonane	6.722	57	472	0.50	ng	#	46
54) Styrene	6.974	104	747	0.54	ng	#	62
55) 1,1,2,2-Tetrachloroethane	7.448	83	472	0.47	ng	#	90
56) o-Xylene	6.951	106	878	0.90	ng	#	87
57) 1,2,3-Trichloropropane	7.477	75	586	0.60	ng		93
58) Isopropylbenzene	7.225	105	1157	0.44	ng	#	89
61) Bromobenzene	7.432	156	302	0.68	ng		94
62) n-Propylbenzene	7.521	91	1353	0.64	ng		93
63) 2-Chlorotoluene	7.572	91	937	0.69	ng		91

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070925.D
Acq On : 10 Jul 2024 01:10 am
Operator : KAI
Sample : SEQ-ICB1
Misc : LB
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 10 10:27:56 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:27:04 2024
Response via : Initial Calibration

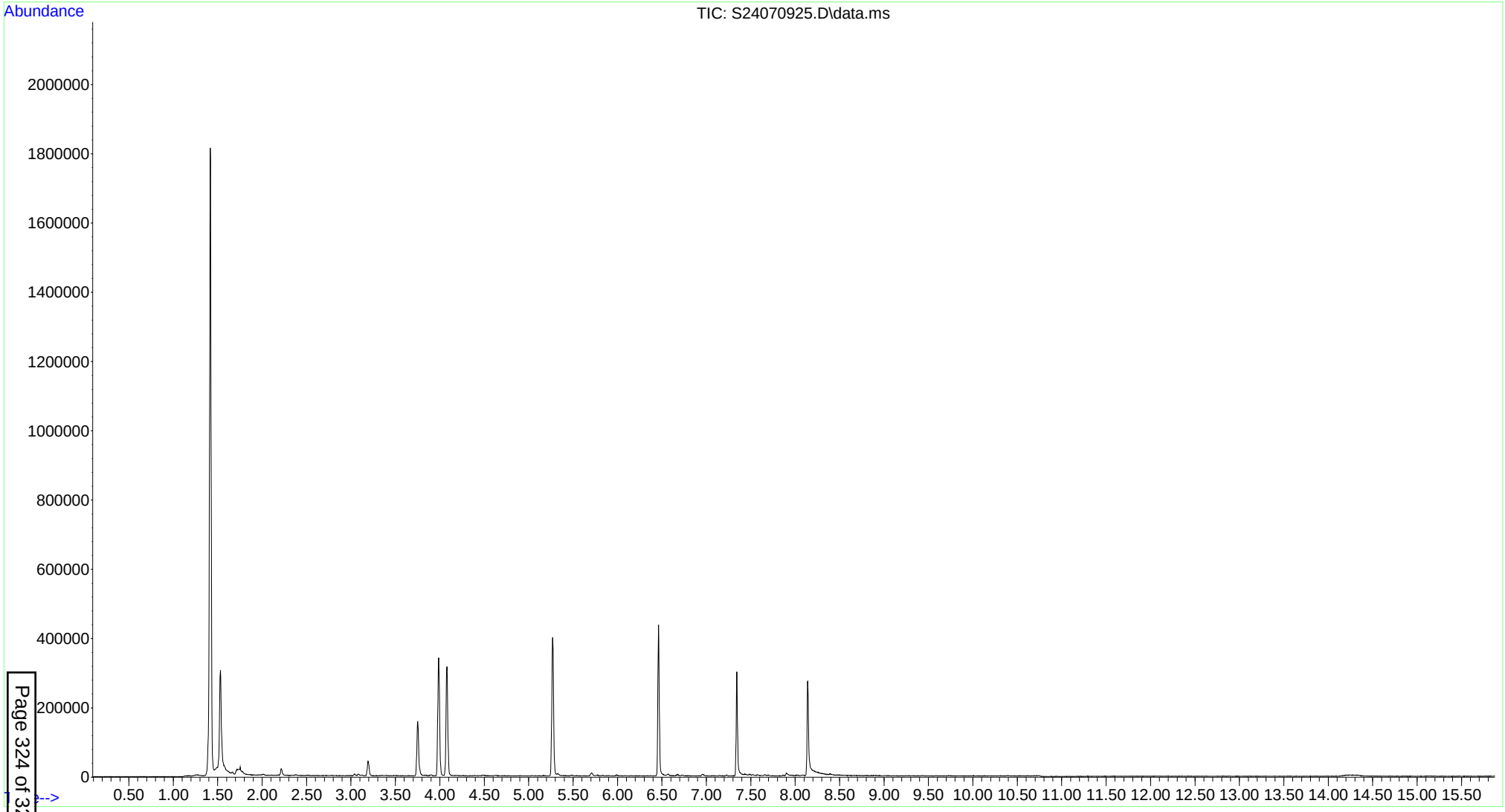
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
64) 4-Chlorotoluene	7.668	91	1166	0.78	ng	#	72
65) 1,3,5-Trimethylbenzene	7.658	120	333	0.47	ng		91
66) Decane	7.693	57	379	0.44	ng	#	64
67) tert-Butylbenzene	7.868	119	647	0.47	ng	#	80
68) 1,2,4-Trimethylbenzene	7.910	120	224	0.34	ng	#	1
69) sec-Butylbenzene	8.021	105	900	0.50	ng	#	76
70) 1,3-Dichlorobenzene	8.081	146	494	0.61	ng		98
71) p-Isopropyl toluene	8.126	119	662	0.41	ng	#	25
72) 1,4-Dichlorobenzene	8.158	146	595	0.69	ng	#	82
73) 1,2-Dichlorobenzene	8.390	146	591	0.68	ng		95
74) n-Butylbenzene	8.393	91	592	0.41	ng	#	68
75) Undecane	8.495	57	36	0.04	ng	#	28
79) 1,2,4-Trichlorobenzene	9.425	180	277	0.45	ng		86
80) Naphthalene	9.587	128	1452	0.64	ng	#	73
81) Hexachlorobutadiene	9.517	225	161	0.43	ng	#	23
82) 1,2,3-Trichlorobenzene	9.730	180	398	0.60	ng		81
84) 2-Methylnaphthalene	10.303	142	84	0.06	ng		94
85) Tetradecane	10.386	57	62	0.07	ng	#	20
87) Biphenyl	10.689	154	72	0.06	ng	#	41
88) Acenaphthylene	11.182	152	135	0.14	ng	#	61
89) Acenaphthene	11.287	153	40	0.05	ng	#	5
90) Dibenzofuran	11.484	168	38	0.04	ng	#	39
93) TPH c4-c9	5.050	TIC	730743m	304.32	ng		
94) TPH C5-C8	5.000	TIC	695986m	324.10	ng		
95) TPH c10-c15	10.050	TIC	717686m	150.03	ng		
96) TPH C9-C15	10.000	TIC	847548m	145.09	ng		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : Z:\GCMS\data\24\07\S240709 Cal\
Data File : S24070925.D
Acq On : 10 Jul 2024 01:10 am
Operator : KAI
Sample : SEQ-ICB1
Misc : LB
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 10 10:27:56 2024
Quant Method : Z:\msdchem\S_system\S_5977_240709 FULL CAL.M
Quant Title : SOURCE AREA VOA ANALYSIS
QLast Update : Wed Jul 10 10:27:04 2024
Response via : Initial Calibration



526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Management Records

BEACON ENVIRONMENTAL

526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Maul Foster & Alongi, Inc.	**Site Name:** Former Potter Property	**Beacon Proposal:** 240523H01
2815 2nd Avenue, Suite 540	**Site Location:** Tacoma, WA	**Lab Work Order:** 0007984
Seattle, WA 98121	**Project Manager:** Audrey Hackett	**Reported:** 09/10/2024

Sample Condition & Receipt Log

Shipped By: FedEx | Received: 8/30/24 11:35 | Samples Logged: 8/30/24 13:21

Submitted by: Brenden Murphy | Received by: Autumn M. Anderson

Custody Seals Intact or NA	Yes	All Samples Returned	Yes
Containers Intact	Yes	Tools Returned	Yes
COC/Samples Agree	Yes	All Samples received in acceptable Condition	Yes

Lab ID: 0007984-01 **Sample ID:** Trip 1

Sampled	Sampler Type	Preservation	Matrix	Sample Condition
8/27/24 0:00	Beacon Passive Sampler	Adsorbent	Air	Good

Comments:

Lab ID: 0007984-02 **Sample ID:** TWA-PSV-01

Sampled	Sampler Type	Preservation	Matrix	Sample Condition
8/27/24 15:10	Beacon Passive Sampler	Adsorbent	Soil Gas	Good

Comments:

Lab ID: 0007984-03 **Sample ID:** TWA-PSV-02

Sampled	Sampler Type	Preservation	Matrix	Sample Condition
8/27/24 16:00	Beacon Passive Sampler	Adsorbent	Soil Gas	Good

Comments:

Lab ID: 0007984-04 **Sample ID:** TWA-PSV-03

Sampled	Sampler Type	Preservation	Matrix	Sample Condition
8/27/24 16:25	Beacon Passive Sampler	Adsorbent	Soil Gas	Good

Comments:

Lab ID: 0007984-05 **Sample ID:** TWA-PSV-04

Sampled	Sampler Type	Preservation	Matrix	Sample Condition
8/27/24 16:50	Beacon Passive Sampler	Adsorbent	Soil Gas	Good

Comments:

Lab ID: 0007984-06 **Sample ID:** TWA-PSV-05

Sampled	Sampler Type	Preservation	Matrix	Sample Condition
8/27/24 17:00	Beacon Passive Sampler	Adsorbent	Soil Gas	Good

Comments:

Lab ID: 0007984-07 **Sample ID:** TWA-PSV-05-DUP

Sampled	Sampler Type	Preservation	Matrix	Sample Condition
8/27/24 17:00	Beacon Passive Sampler	Adsorbent	Soil Gas	Good

Comments:

BEACON ENVIRONMENTAL
526 Underwood Lane
Bel Air, Maryland 21014 USA
Need help? Call 1-410-838-8780
or email help@beacon-usa.com

PASSIVE SOIL GAS SAMPLES | CHAIN-OF-CUSTODY

Project Information		Client Information	
Site Name: Former Potter Property, Tacoma, WA		Company Name: Maul Foster & Alongi	Project Manager: Audrey Hackett
Site Location: 1801 E Alexander Ave, Tacoma, WA		Office Location: 2815 2nd Ave, Ste 540, Seattle, WA	Client PO: M0615.20.013
		Submitted by: Brenden Murphy	Turn around time (check one): [X] Normal [ ] Rush (specify) ____ days
		Email: bmurphy@maulfoster.com	

Field Sample ID	Start Date	Start Time	Stop Date	Stop Time	Sampling Hole Depth [ ] cm [X] inches	Surface Type (Soil, Asphalt, Concrete, Gravel)	Optional Information (Location Description, Sample Condition, PID / FID Readings, etc)
TWA-PSV-01	8/13/24	15:10	8/27/24	15:10	24	Soil	
TWA-PSV-02	8/13/24	16:00	8/27/24	16:00	24	Soil	
TWA-PSV-03	8/13/24	16:25	8/27/24	16:25	24	Soil	
TWA-PSV-04	8/13/24	16:50	8/27/24	16:50	24	Soil	
TWA-PSV-05	8/13/24	17:00	8/27/24	17:00	24	Soil	
TWA-PSV-05-DUP	8/13/24	17:00	8/27/24	17:00	24	Soil	
Trip 1	—	—	—	—	—	—	Added 8/30/24

Special Instructions: please email results to ahackett@maulfoster.com as well

Relinquished by (signature):	Date / Time: 8/28/24 16:00	Received by (signature): Autumn Andersen	Date / Time: 8/30/24 11:35
Relinquished by (signature):	Date / Time:	Received by (signature):	Date / Time:
For Lab Use Only	Beacon Job No: 7984	Beacon Proposal: 240523H01	Analytical Method: TO-17
Courier Name: Fedex	Shipment Condition: Good	Custody Seal Intact: [ ] Yes [ ] No [✓] n/a	Custody Seal No: —

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

September 12, 2024

Audrey Hackett, Project Manager
Maul Foster Alongi
2815 2nd Ave, Suite 540
Seattle, WA 98121

Dear Ms Hackett:

Included are the results from the testing of material submitted on August 28, 2024 from the TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469 project. There are 29 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
MFA0912R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 28, 2024 by Friedman & Bruya, Inc. from the Maul Foster Alongi TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Maul Foster Alongi
408469 -01	TWA-SV-42-082724
408469 -02	TWA-SV-41-082724
408469 -03	TWA-SV-44-082724
408469 -04	TWA-SV-DUP-082724
408469 -05	TWA-SV-45-082724
408469 -06	TWA-SV-43-082724
408469 -07	TWA-SV-48-082724
408469 -08	TWA-SV-47-082724
408469 -09	TWA-SV-46-082724

The samples were sent to Alliance Technical Group for major gases analysis. The report is enclosed.

The concentration of several analytes exceeded the calibration range of the instrument. The data were flagged accordingly.

The 8270E calibration standard exceeded the acceptance criteria for hexachlorobutadiene. The compound was not detected, therefore this did not represent an out of control condition, and were qualified with a "k" qualifier. The results are not considered estimates.

All other quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-42-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-01 1/7.8
Date Analyzed:	08/30/24	Data File:	082923.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	880
APH EC9-12 aliphatics	<190
APH EC9-10 aromatics	<190

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-41-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-02 1/16
Date Analyzed:	08/30/24	Data File:	082925.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	82	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<1,200
APH EC9-12 aliphatics	<400
APH EC9-10 aromatics	<400

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-44-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-03 1/16
Date Analyzed:	08/30/24	Data File:	082926.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	81	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<1,200
APH EC9-12 aliphatics	<400
APH EC9-10 aromatics	<400

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-DUP-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-04 1/15
Date Analyzed:	08/30/24	Data File:	082927.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<1,100
APH EC9-12 aliphatics	<370
APH EC9-10 aromatics	<370

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-45-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-05 1/8.2
Date Analyzed:	08/30/24	Data File:	082924.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	85	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<610
APH EC9-12 aliphatics	<200
APH EC9-10 aromatics	<200

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-43-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-06 1/5.2
Date Analyzed:	08/29/24	Data File:	082922.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	480
APH EC9-12 aliphatics	<130
APH EC9-10 aromatics	<130

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-48-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-07 1/5.3
Date Analyzed:	08/29/24	Data File:	082919.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	490
APH EC9-12 aliphatics	<130
APH EC9-10 aromatics	<130

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-47-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-08 1/5.3
Date Analyzed:	08/29/24	Data File:	082920.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	84	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	470
APH EC9-12 aliphatics	<130
APH EC9-10 aromatics	<130

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	TWA-SV-46-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-09 1/5.4
Date Analyzed:	08/29/24	Data File:	082921.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	83	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	520
APH EC9-12 aliphatics	<130
APH EC9-10 aromatics	<130

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	Maul Foster Alongi
Date Received:	Not Applicable	Project:	M0615.20.013, F&BI 408469
Date Collected:	Not Applicable	Lab ID:	04-2034 MB
Date Analyzed:	08/29/24	Data File:	082911.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	85	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-42-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-01 1/7.8
Date Analyzed:	08/30/24	Data File:	082923.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<11	<6.2	1,2-Dichloropropane	<1.8	<0.39
Dichlorodifluoromethane	<7.7	<1.6	1,4-Dioxane	<2.8	<0.78
Chloromethane	<29	<14	2,2,4-Trimethylpentane	<36	<7.8
F-114	<16	<2.3	Methyl methacrylate	<32	<7.8
Vinyl chloride	<2	<0.78	Heptane	<32	<7.8
1,3-Butadiene	<0.35	<0.16	Bromodichloromethane	<0.52	<0.078
Butane	<37	<16	Trichloroethene	<0.84	<0.16
Bromomethane	<30	<7.8	cis-1,3-Dichloropropene	<7.1	<1.6
Chloroethane	<21	<7.8	4-Methyl-2-pentanone	<64	<16
Vinyl bromide	<3.4	<0.78	trans-1,3-Dichloropropene	<3.5	<0.78
Ethanol	<59	<31	Toluene	<59	<16
Acrolein	<0.89	<0.39	1,1,2-Trichloroethane	<0.43	<0.078
Pentane	<46	<16	2-Hexanone	<32	<7.8
Trichlorofluoromethane	<18	<3.1	Tetrachloroethene	820 ve	120 ve
Acetone	<37	<16	Dibromochloromethane	<0.66	<0.078
2-Propanol	<67	<27	1,2-Dibromoethane (EDB)	<0.6	<0.078
1,1-Dichloroethene	<3.1	<0.78	Chlorobenzene	<3.6	<0.78
trans-1,2-Dichloroethene	<3.1	<0.78	Ethylbenzene	8.8	2.0
Methylene chloride	<270	<78	1,1,2,2-Tetrachloroethane	<1.1	<0.16
t-Butyl alcohol (TBA)	<95	<31	Nonane	<41	<7.8
3-Chloropropene	<24	<7.8	Isopropylbenzene	<77	<16
CFC-113	<12	<1.6	2-Chlorotoluene	<40	<7.8
Carbon disulfide	<49	<16	Propylbenzene	<38	<7.8
Methyl t-butyl ether (MTBE)	<56	<16	4-Ethyltoluene	<38	<7.8
Vinyl acetate	<55	<16	m,p-Xylene	31	7.1
1,1-Dichloroethane	<3.2	<0.78	o-Xylene	7.0	1.6
cis-1,2-Dichloroethene	<3.1	<0.78	Styrene	<6.6	<1.6
Hexane	<27	<7.8	Bromoform	<16	<1.6
Chloroform	<0.38	<0.078	Benzyl chloride	<0.4	<0.078
Ethyl acetate	<56	<16	1,3,5-Trimethylbenzene	<38	<7.8
Tetrahydrofuran	<6.9	<2.3	1,2,4-Trimethylbenzene	<38	<7.8
2-Butanone (MEK)	<46	<16	1,3-Dichlorobenzene	<4.7	<0.78
1,2-Dichloroethane (EDC)	<0.32	<0.078	1,4-Dichlorobenzene	<1.8	<0.3
1,1,1-Trichloroethane	<4.3	<0.78	1,2-Dichlorobenzene	<4.7	<0.78
Carbon tetrachloride	<2.5	<0.39	1,2,4-Trichlorobenzene	<5.8	<0.78
Benzene	<2.5	<0.78	Naphthalene	<2	<0.39
Cyclohexane	<54	<16	Hexachlorobutadiene	<1.7 k	<0.16 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-41-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-02 1/16
Date Analyzed:	08/30/24	Data File:	082925.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<22	<13	1,2-Dichloropropane	<3.7	<0.8
Dichlorodifluoromethane	<16	<3.2	1,4-Dioxane	<5.8	<1.6
Chloromethane	<59	<29	2,2,4-Trimethylpentane	<75	<16
F-114	<34	<4.8	Methyl methacrylate	<66	<16
Vinyl chloride	<4.1	<1.6	Heptane	<66	<16
1,3-Butadiene	<0.71	<0.32	Bromodichloromethane	<1.1	<0.16
Butane	<76	<32	Trichloroethene	96	18
Bromomethane	<62	<16	cis-1,3-Dichloropropene	<15	<3.2
Chloroethane	<42	<16	4-Methyl-2-pentanone	<130	<32
Vinyl bromide	<7	<1.6	trans-1,3-Dichloropropene	<7.3	<1.6
Ethanol	<120	<64	Toluene	<120	<32
Acrolein	<1.8	<0.8	1,1,2-Trichloroethane	<0.87	<0.16
Pentane	<94	<32	2-Hexanone	<66	<16
Trichlorofluoromethane	<36	<6.4	Tetrachloroethene	8,000 ve	1,200 ve
Acetone	<76	<32	Dibromochloromethane	<1.4	<0.16
2-Propanol	<140	<56	1,2-Dibromoethane (EDB)	<1.2	<0.16
1,1-Dichloroethene	<6.3	<1.6	Chlorobenzene	<7.4	<1.6
trans-1,2-Dichloroethene	<6.3	<1.6	Ethylbenzene	<6.9	<1.6
Methylene chloride	<560	<160	1,1,2,2-Tetrachloroethane	<2.2	<0.32
t-Butyl alcohol (TBA)	<190	<64	Nonane	<84	<16
3-Chloropropene	<50	<16	Isopropylbenzene	<160	<32
CFC-113	<25	<3.2	2-Chlorotoluene	<83	<16
Carbon disulfide	<100	<32	Propylbenzene	<79	<16
Methyl t-butyl ether (MTBE)	<120	<32	4-Ethyltoluene	<79	<16
Vinyl acetate	<110	<32	m,p-Xylene	16	3.7
1,1-Dichloroethane	<6.5	<1.6	o-Xylene	<6.9	<1.6
cis-1,2-Dichloroethene	<6.3	<1.6	Styrene	<14	<3.2
Hexane	<56	<16	Bromoform	<33	<3.2
Chloroform	2.3	0.46	Benzyl chloride	<0.83	<0.16
Ethyl acetate	<120	<32	1,3,5-Trimethylbenzene	<79	<16
Tetrahydrofuran	<14	<4.8	1,2,4-Trimethylbenzene	<79	<16
2-Butanone (MEK)	<94	<32	1,3-Dichlorobenzene	<9.6	<1.6
1,2-Dichloroethane (EDC)	<0.65	<0.16	1,4-Dichlorobenzene	<3.7	<0.61
1,1,1-Trichloroethane	<8.7	<1.6	1,2-Dichlorobenzene	<9.6	<1.6
Carbon tetrachloride	<5	<0.8	1,2,4-Trichlorobenzene	<12	<1.6
Benzene	<5.1	<1.6	Naphthalene	<4.2	<0.8
Cyclohexane	<110	<32	Hexachlorobutadiene	<3.4 k	<0.32 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-44-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-03 1/16
Date Analyzed:	08/30/24	Data File:	082926.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<22	<13	1,2-Dichloropropane	<3.7	<0.8
Dichlorodifluoromethane	<16	<3.2	1,4-Dioxane	<5.8	<1.6
Chloromethane	<59	<29	2,2,4-Trimethylpentane	<75	<16
F-114	<34	<4.8	Methyl methacrylate	<66	<16
Vinyl chloride	<4.1	<1.6	Heptane	<66	<16
1,3-Butadiene	<0.71	<0.32	Bromodichloromethane	<1.1	<0.16
Butane	<76	<32	Trichloroethene	1,200	220
Bromomethane	<62	<16	cis-1,3-Dichloropropene	<15	<3.2
Chloroethane	<42	<16	4-Methyl-2-pentanone	<130	<32
Vinyl bromide	<7	<1.6	trans-1,3-Dichloropropene	<7.3	<1.6
Ethanol	<120	<64	Toluene	<120	<32
Acrolein	<1.8	<0.8	1,1,2-Trichloroethane	<0.87	<0.16
Pentane	<94	<32	2-Hexanone	<66	<16
Trichlorofluoromethane	<36	<6.4	Tetrachloroethene	10,000 ve	1,500 ve
Acetone	<76	<32	Dibromochloromethane	<1.4	<0.16
2-Propanol	<140	<56	1,2-Dibromoethane (EDB)	<1.2	<0.16
1,1-Dichloroethene	<6.3	<1.6	Chlorobenzene	<7.4	<1.6
trans-1,2-Dichloroethene	190	48	Ethylbenzene	<6.9	<1.6
Methylene chloride	<560	<160	1,1,2,2-Tetrachloroethane	<2.2	<0.32
t-Butyl alcohol (TBA)	<190	<64	Nonane	<84	<16
3-Chloropropene	<50	<16	Isopropylbenzene	<160	<32
CFC-113	<25	<3.2	2-Chlorotoluene	<83	<16
Carbon disulfide	<100	<32	Propylbenzene	<79	<16
Methyl t-butyl ether (MTBE)	<120	<32	4-Ethyltoluene	<79	<16
Vinyl acetate	<110	<32	m,p-Xylene	16	3.7
1,1-Dichloroethane	<6.5	<1.6	o-Xylene	<6.9	<1.6
cis-1,2-Dichloroethene	39	9.9	Styrene	<14	<3.2
Hexane	<56	<16	Bromoform	<33	<3.2
Chloroform	5.7	1.2	Benzyl chloride	<0.83	<0.16
Ethyl acetate	<120	<32	1,3,5-Trimethylbenzene	<79	<16
Tetrahydrofuran	<14	<4.8	1,2,4-Trimethylbenzene	<79	<16
2-Butanone (MEK)	<94	<32	1,3-Dichlorobenzene	<9.6	<1.6
1,2-Dichloroethane (EDC)	<0.65	<0.16	1,4-Dichlorobenzene	<3.7	<0.61
1,1,1-Trichloroethane	<8.7	<1.6	1,2-Dichlorobenzene	<9.6	<1.6
Carbon tetrachloride	<5	<0.8	1,2,4-Trichlorobenzene	<12	<1.6
Benzene	<5.1	<1.6	Naphthalene	<4.2	<0.8
Cyclohexane	<110	<32	Hexachlorobutadiene	<3.4 k	<0.32 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-DUP-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-04 1/15
Date Analyzed:	08/30/24	Data File:	082927.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<21	<12	1,2-Dichloropropane	<3.5	<0.75
Dichlorodifluoromethane	<15	<3	1,4-Dioxane	<5.4	<1.5
Chloromethane	<56	<27	2,2,4-Trimethylpentane	<70	<15
F-114	<31	<4.5	Methyl methacrylate	<61	<15
Vinyl chloride	<3.8	<1.5	Heptane	<61	<15
1,3-Butadiene	<0.66	<0.3	Bromodichloromethane	<1	<0.15
Butane	<71	<30	Trichloroethene	1,300 ve	240 ve
Bromomethane	<58	<15	cis-1,3-Dichloropropene	<14	<3
Chloroethane	<40	<15	4-Methyl-2-pentanone	<120	<30
Vinyl bromide	<6.6	<1.5	trans-1,3-Dichloropropene	<6.8	<1.5
Ethanol	<110	<60	Toluene	<110	<30
Acrolein	<1.7	<0.75	1,1,2-Trichloroethane	<0.82	<0.15
Pentane	<89	<30	2-Hexanone	<61	<15
Trichlorofluoromethane	<34	<6	Tetrachloroethene	11,000 ve	1,600 ve
Acetone	<71	<30	Dibromochloromethane	<1.3	<0.15
2-Propanol	<130	<52	1,2-Dibromoethane (EDB)	<1.2	<0.15
1,1-Dichloroethene	<5.9	<1.5	Chlorobenzene	<6.9	<1.5
trans-1,2-Dichloroethene	200	51	Ethylbenzene	<6.5	<1.5
Methylene chloride	<520	<150	1,1,2,2-Tetrachloroethane	<2.1	<0.3
t-Butyl alcohol (TBA)	<180	<60	Nonane	<79	<15
3-Chloropropene	<47	<15	Isopropylbenzene	<150	<30
CFC-113	<23	<3	2-Chlorotoluene	<78	<15
Carbon disulfide	<93	<30	Propylbenzene	<74	<15
Methyl t-butyl ether (MTBE)	<110	<30	4-Ethyltoluene	<74	<15
Vinyl acetate	<110	<30	m,p-Xylene	16	3.6
1,1-Dichloroethane	<6.1	<1.5	o-Xylene	<6.5	<1.5
cis-1,2-Dichloroethene	41	10	Styrene	<13	<3
Hexane	<53	<15	Bromoform	<31	<3
Chloroform	6.1	1.2	Benzyl chloride	<0.78	<0.15
Ethyl acetate	<110	<30	1,3,5-Trimethylbenzene	<74	<15
Tetrahydrofuran	<13	<4.5	1,2,4-Trimethylbenzene	<74	<15
2-Butanone (MEK)	<88	<30	1,3-Dichlorobenzene	<9	<1.5
1,2-Dichloroethane (EDC)	<0.61	<0.15	1,4-Dichlorobenzene	<3.4	<0.57
1,1,1-Trichloroethane	<8.2	<1.5	1,2-Dichlorobenzene	<9	<1.5
Carbon tetrachloride	<4.7	<0.75	1,2,4-Trichlorobenzene	<11	<1.5
Benzene	<4.8	<1.5	Naphthalene	<3.9	<0.75
Cyclohexane	<100	<30	Hexachlorobutadiene	<3.2 k	<0.3 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-45-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-05 1/8.2
Date Analyzed:	08/30/24	Data File:	082924.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	91	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<11	<6.6	1,2-Dichloropropane	<1.9	<0.41
Dichlorodifluoromethane	<8.1	<1.6	1,4-Dioxane	<3	<0.82
Chloromethane	<30	<15	2,2,4-Trimethylpentane	<38	<8.2
F-114	<17	<2.5	Methyl methacrylate	<34	<8.2
Vinyl chloride	<2.1	<0.82	Heptane	<34	<8.2
1,3-Butadiene	<0.36	<0.16	Bromodichloromethane	<0.55	<0.082
Butane	<39	<16	Trichloroethene	<0.88	<0.16
Bromomethane	<32	<8.2	cis-1,3-Dichloropropene	<7.4	<1.6
Chloroethane	<22	<8.2	4-Methyl-2-pentanone	<67	<16
Vinyl bromide	<3.6	<0.82	trans-1,3-Dichloropropene	<3.7	<0.82
Ethanol	<62	<33	Toluene	<62	<16
Acrolein	<0.94	<0.41	1,1,2-Trichloroethane	<0.45	<0.082
Pentane	<48	<16	2-Hexanone	<34	<8.2
Trichlorofluoromethane	<18	<3.3	Tetrachloroethene	2,000 ve	300 ve
Acetone	<39	<16	Dibromochloromethane	<0.7	<0.082
2-Propanol	<71	<29	1,2-Dibromoethane (EDB)	<0.63	<0.082
1,1-Dichloroethene	<3.3	<0.82	Chlorobenzene	<3.8	<0.82
trans-1,2-Dichloroethene	<3.3	<0.82	Ethylbenzene	7.8	1.8
Methylene chloride	<280	<82	1,1,2,2-Tetrachloroethane	<1.1	<0.16
t-Butyl alcohol (TBA)	<99	<33	Nonane	<43	<8.2
3-Chloropropene	<26	<8.2	Isopropylbenzene	<81	<16
CFC-113	<13	<1.6	2-Chlorotoluene	<42	<8.2
Carbon disulfide	<51	<16	Propylbenzene	<40	<8.2
Methyl t-butyl ether (MTBE)	<59	<16	4-Ethyltoluene	<40	<8.2
Vinyl acetate	<58	<16	m,p-Xylene	27	6.2
1,1-Dichloroethane	<3.3	<0.82	o-Xylene	6.1	1.4
cis-1,2-Dichloroethene	<3.3	<0.82	Styrene	<7	<1.6
Hexane	<29	<8.2	Bromoform	<17	<1.6
Chloroform	<0.4	<0.082	Benzyl chloride	<0.42	<0.082
Ethyl acetate	<59	<16	1,3,5-Trimethylbenzene	<40	<8.2
Tetrahydrofuran	<7.3	<2.5	1,2,4-Trimethylbenzene	<40	<8.2
2-Butanone (MEK)	<48	<16	1,3-Dichlorobenzene	<4.9	<0.82
1,2-Dichloroethane (EDC)	<0.33	<0.082	1,4-Dichlorobenzene	<1.9	<0.31
1,1,1-Trichloroethane	<4.5	<0.82	1,2-Dichlorobenzene	<4.9	<0.82
Carbon tetrachloride	<2.6	<0.41	1,2,4-Trichlorobenzene	<6.1	<0.82
Benzene	<2.6	<0.82	Naphthalene	<2.1	<0.41
Cyclohexane	<56	<16	Hexachlorobutadiene	<1.7 k	<0.16 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-43-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-06 1/5.2
Date Analyzed:	08/29/24	Data File:	082922.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<7.2	<4.2	1,2-Dichloropropane	<1.2	<0.26
Dichlorodifluoromethane	<5.1	<1	1,4-Dioxane	<1.9	<0.52
Chloromethane	<19	<9.4	2,2,4-Trimethylpentane	<24	<5.2
F-114	<11	<1.6	Methyl methacrylate	<21	<5.2
Vinyl chloride	<1.3	<0.52	Heptane	<21	<5.2
1,3-Butadiene	<0.23	<0.1	Bromodichloromethane	<0.35	<0.052
Butane	<25	<10	Trichloroethene	<0.56	<0.1
Bromomethane	<20	<5.2	cis-1,3-Dichloropropene	<4.7	<1
Chloroethane	<14	<5.2	4-Methyl-2-pentanone	<43	<10
Vinyl bromide	<2.3	<0.52	trans-1,3-Dichloropropene	<2.4	<0.52
Ethanol	<39	<21	Toluene	<39	<10
Acrolein	<0.6	<0.26	1,1,2-Trichloroethane	<0.28	<0.052
Pentane	<31	<10	2-Hexanone	<21	<5.2
Trichlorofluoromethane	<12	<2.1	Tetrachloroethene	290	43
Acetone	<25	<10	Dibromochloromethane	<0.44	<0.052
2-Propanol	<45	<18	1,2-Dibromoethane (EDB)	<0.4	<0.052
1,1-Dichloroethene	<2.1	<0.52	Chlorobenzene	<2.4	<0.52
trans-1,2-Dichloroethene	<2.1	<0.52	Ethylbenzene	5.0	1.2
Methylene chloride	<180	<52	1,1,2,2-Tetrachloroethane	<0.71	<0.1
t-Butyl alcohol (TBA)	<63	<21	Nonane	<27	<5.2
3-Chloropropene	<16	<5.2	Isopropylbenzene	<51	<10
CFC-113	<8	<1	2-Chlorotoluene	<27	<5.2
Carbon disulfide	<32	<10	Propylbenzene	<26	<5.2
Methyl t-butyl ether (MTBE)	<37	<10	4-Ethyltoluene	<26	<5.2
Vinyl acetate	<37	<10	m,p-Xylene	17	4.0
1,1-Dichloroethane	<2.1	<0.52	o-Xylene	3.8	0.87
cis-1,2-Dichloroethene	<2.1	<0.52	Styrene	<4.4	<1
Hexane	<18	<5.2	Bromoform	<11	<1
Chloroform	<0.25	<0.052	Benzyl chloride	<0.27	<0.052
Ethyl acetate	<37	<10	1,3,5-Trimethylbenzene	<26	<5.2
Tetrahydrofuran	<4.6	<1.6	1,2,4-Trimethylbenzene	<26	<5.2
2-Butanone (MEK)	<31	<10	1,3-Dichlorobenzene	<3.1	<0.52
1,2-Dichloroethane (EDC)	<0.21	<0.052	1,4-Dichlorobenzene	<1.2	<0.2
1,1,1-Trichloroethane	<2.8	<0.52	1,2-Dichlorobenzene	<3.1	<0.52
Carbon tetrachloride	<1.6	<0.26	1,2,4-Trichlorobenzene	<3.9	<0.52
Benzene	<1.7	<0.52	Naphthalene	<1.4	<0.26
Cyclohexane	<36	<10	Hexachlorobutadiene	<1.1 k	<0.1 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-48-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-07 1/5.3
Date Analyzed:	08/29/24	Data File:	082919.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	94	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<7.3	<4.2	1,2-Dichloropropane	<1.2	<0.26
Dichlorodifluoromethane	50	10	1,4-Dioxane	<1.9	<0.53
Chloromethane	<20	<9.5	2,2,4-Trimethylpentane	<25	<5.3
F-114	<11	<1.6	Methyl methacrylate	<22	<5.3
Vinyl chloride	<1.4	<0.53	Heptane	<22	<5.3
1,3-Butadiene	<0.23	<0.11	Bromodichloromethane	<0.36	<0.053
Butane	<25	<11	Trichloroethene	<0.57	<0.11
Bromomethane	<21	<5.3	cis-1,3-Dichloropropene	<4.8	<1.1
Chloroethane	<14	<5.3	4-Methyl-2-pentanone	<43	<11
Vinyl bromide	<2.3	<0.53	trans-1,3-Dichloropropene	<2.4	<0.53
Ethanol	<40	<21	Toluene	<40	<11
Acrolein	<0.61	<0.26	1,1,2-Trichloroethane	<0.29	<0.053
Pentane	<31	<11	2-Hexanone	<22	<5.3
Trichlorofluoromethane	97	17	Tetrachloroethene	<36	<5.3
Acetone	<25	<11	Dibromochloromethane	<0.45	<0.053
2-Propanol	<46	<19	1,2-Dibromoethane (EDB)	<0.41	<0.053
1,1-Dichloroethene	<2.1	<0.53	Chlorobenzene	<2.4	<0.53
trans-1,2-Dichloroethene	<2.1	<0.53	Ethylbenzene	<2.3	<0.53
Methylene chloride	<180	<53	1,1,2,2-Tetrachloroethane	<0.73	<0.11
t-Butyl alcohol (TBA)	<64	<21	Nonane	<28	<5.3
3-Chloropropene	<17	<5.3	Isopropylbenzene	<52	<11
CFC-113	<8.1	<1.1	2-Chlorotoluene	<27	<5.3
Carbon disulfide	<33	<11	Propylbenzene	<26	<5.3
Methyl t-butyl ether (MTBE)	<38	<11	4-Ethyltoluene	<26	<5.3
Vinyl acetate	<37	<11	m,p-Xylene	5.7	1.3
1,1-Dichloroethane	<2.1	<0.53	o-Xylene	<2.3	<0.53
cis-1,2-Dichloroethene	<2.1	<0.53	Styrene	<4.5	<1.1
Hexane	<19	<5.3	Bromoform	<11	<1.1
Chloroform	1.0	0.21	Benzyl chloride	<0.27	<0.053
Ethyl acetate	<38	<11	1,3,5-Trimethylbenzene	<26	<5.3
Tetrahydrofuran	<4.7	<1.6	1,2,4-Trimethylbenzene	<26	<5.3
2-Butanone (MEK)	<31	<11	1,3-Dichlorobenzene	<3.2	<0.53
1,2-Dichloroethane (EDC)	<0.21	<0.053	1,4-Dichlorobenzene	<1.2	<0.2
1,1,1-Trichloroethane	<2.9	<0.53	1,2-Dichlorobenzene	<3.2	<0.53
Carbon tetrachloride	<1.7	<0.26	1,2,4-Trichlorobenzene	<3.9	<0.53
Benzene	<1.7	<0.53	Naphthalene	<1.4	<0.26
Cyclohexane	<36	<11	Hexachlorobutadiene	<1.1 k	<0.11 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-47-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-08 1/5.3
Date Analyzed:	08/29/24	Data File:	082920.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<7.3	<4.2	1,2-Dichloropropane	<1.2	<0.26
Dichlorodifluoromethane	<5.2	<1.1	1,4-Dioxane	<1.9	<0.53
Chloromethane	<20	<9.5	2,2,4-Trimethylpentane	<25	<5.3
F-114	<11	<1.6	Methyl methacrylate	<22	<5.3
Vinyl chloride	<1.4	<0.53	Heptane	<22	<5.3
1,3-Butadiene	<0.23	<0.11	Bromodichloromethane	<0.36	<0.053
Butane	<25	<11	Trichloroethene	<0.57	<0.11
Bromomethane	<21	<5.3	cis-1,3-Dichloropropene	<4.8	<1.1
Chloroethane	<14	<5.3	4-Methyl-2-pentanone	<43	<11
Vinyl bromide	<2.3	<0.53	trans-1,3-Dichloropropene	<2.4	<0.53
Ethanol	<40	<21	Toluene	<40	<11
Acrolein	<0.61	<0.26	1,1,2-Trichloroethane	<0.29	<0.053
Pentane	<31	<11	2-Hexanone	<22	<5.3
Trichlorofluoromethane	26	4.6	Tetrachloroethene	<36	<5.3
Acetone	<25	<11	Dibromochloromethane	<0.45	<0.053
2-Propanol	<46	<19	1,2-Dibromoethane (EDB)	<0.41	<0.053
1,1-Dichloroethene	<2.1	<0.53	Chlorobenzene	<2.4	<0.53
trans-1,2-Dichloroethene	<2.1	<0.53	Ethylbenzene	<2.3	<0.53
Methylene chloride	<180	<53	1,1,2,2-Tetrachloroethane	<0.73	<0.11
t-Butyl alcohol (TBA)	<64	<21	Nonane	<28	<5.3
3-Chloropropene	<17	<5.3	Isopropylbenzene	<52	<11
CFC-113	<8.1	<1.1	2-Chlorotoluene	<27	<5.3
Carbon disulfide	<33	<11	Propylbenzene	<26	<5.3
Methyl t-butyl ether (MTBE)	<38	<11	4-Ethyltoluene	<26	<5.3
Vinyl acetate	<37	<11	m,p-Xylene	<4.6	<1.1
1,1-Dichloroethane	<2.1	<0.53	o-Xylene	<2.3	<0.53
cis-1,2-Dichloroethene	<2.1	<0.53	Styrene	<4.5	<1.1
Hexane	<19	<5.3	Bromoform	<11	<1.1
Chloroform	0.62	0.13	Benzyl chloride	<0.27	<0.053
Ethyl acetate	<38	<11	1,3,5-Trimethylbenzene	<26	<5.3
Tetrahydrofuran	<4.7	<1.6	1,2,4-Trimethylbenzene	<26	<5.3
2-Butanone (MEK)	<31	<11	1,3-Dichlorobenzene	<3.2	<0.53
1,2-Dichloroethane (EDC)	<0.21	<0.053	1,4-Dichlorobenzene	<1.2	<0.2
1,1,1-Trichloroethane	<2.9	<0.53	1,2-Dichlorobenzene	<3.2	<0.53
Carbon tetrachloride	<1.7	<0.26	1,2,4-Trichlorobenzene	<3.9	<0.53
Benzene	<1.7	<0.53	Naphthalene	<1.4	<0.26
Cyclohexane	<36	<11	Hexachlorobutadiene	<1.1 k	<0.11 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-46-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-09 1/5.4
Date Analyzed:	08/29/24	Data File:	082921.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<7.4	<4.3	1,2-Dichloropropane	<1.2	<0.27
Dichlorodifluoromethane	<5.3	<1.1	1,4-Dioxane	<1.9	<0.54
Chloromethane	<20	<9.7	2,2,4-Trimethylpentane	<25	<5.4
F-114	<11	<1.6	Methyl methacrylate	<22	<5.4
Vinyl chloride	<1.4	<0.54	Heptane	<22	<5.4
1,3-Butadiene	<0.24	<0.11	Bromodichloromethane	<0.36	<0.054
Butane	<26	<11	Trichloroethene	<0.58	<0.11
Bromomethane	<21	<5.4	cis-1,3-Dichloropropene	<4.9	<1.1
Chloroethane	<14	<5.4	4-Methyl-2-pentanone	<44	<11
Vinyl bromide	<2.4	<0.54	trans-1,3-Dichloropropene	<2.5	<0.54
Ethanol	<41	<22	Toluene	<41	<11
Acrolein	<0.62	<0.27	1,1,2-Trichloroethane	<0.29	<0.054
Pentane	<32	<11	2-Hexanone	<22	<5.4
Trichlorofluoromethane	210	37	Tetrachloroethene	<37	<5.4
Acetone	<26	<11	Dibromochloromethane	<0.46	<0.054
2-Propanol	<46	<19	1,2-Dibromoethane (EDB)	<0.41	<0.054
1,1-Dichloroethene	<2.1	<0.54	Chlorobenzene	<2.5	<0.54
trans-1,2-Dichloroethene	<2.1	<0.54	Ethylbenzene	<2.3	<0.54
Methylene chloride	<190	<54	1,1,2,2-Tetrachloroethane	<0.74	<0.11
t-Butyl alcohol (TBA)	<65	<22	Nonane	<28	<5.4
3-Chloropropene	<17	<5.4	Isopropylbenzene	<53	<11
CFC-113	<8.3	<1.1	2-Chlorotoluene	<28	<5.4
Carbon disulfide	<34	<11	Propylbenzene	<27	<5.4
Methyl t-butyl ether (MTBE)	<39	<11	4-Ethyltoluene	<27	<5.4
Vinyl acetate	<38	<11	m,p-Xylene	<4.7	<1.1
1,1-Dichloroethane	<2.2	<0.54	o-Xylene	<2.3	<0.54
cis-1,2-Dichloroethene	<2.1	<0.54	Styrene	<4.6	<1.1
Hexane	<19	<5.4	Bromoform	<11	<1.1
Chloroform	0.32	0.065	Benzyl chloride	<0.28	<0.054
Ethyl acetate	<39	<11	1,3,5-Trimethylbenzene	<27	<5.4
Tetrahydrofuran	<4.8	<1.6	1,2,4-Trimethylbenzene	<27	<5.4
2-Butanone (MEK)	<32	<11	1,3-Dichlorobenzene	<3.2	<0.54
1,2-Dichloroethane (EDC)	<0.22	<0.054	1,4-Dichlorobenzene	<1.2	<0.21
1,1,1-Trichloroethane	<2.9	<0.54	1,2-Dichlorobenzene	<3.2	<0.54
Carbon tetrachloride	<1.7	<0.27	1,2,4-Trichlorobenzene	<4	<0.54
Benzene	<1.7	<0.54	Naphthalene	<1.4	<0.27
Cyclohexane	<37	<11	Hexachlorobutadiene	<1.2 k	<0.11 k

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Maul Foster Alongi
Date Received:	Not Applicable	Project:	M0615.20.013, F&BI 408469
Date Collected:	Not Applicable	Lab ID:	04-2034 MB
Date Analyzed:	08/29/24	Data File:	082911.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3	Concentration ppbv	Compounds:	Concentration ug/m3	Concentration ppbv
Propene	<1.4	<0.8	1,2-Dichloropropane	<0.23	<0.05
Dichlorodifluoromethane	<0.99	<0.2	1,4-Dioxane	<0.36	<0.1
Chloromethane	<3.7	<1.8	2,2,4-Trimethylpentane	<4.7	<1
F-114	<2.1	<0.3	Methyl methacrylate	<4.1	<1
Vinyl chloride	<0.26	<0.1	Heptane	<4.1	<1
1,3-Butadiene	<0.044	<0.02	Bromodichloromethane	<0.067	<0.01
Butane	<4.8	<2	Trichloroethene	<0.11	<0.02
Bromomethane	<3.9	<1	cis-1,3-Dichloropropene	<0.91	<0.2
Chloroethane	<2.6	<1	4-Methyl-2-pentanone	<8.2	<2
Vinyl bromide	<0.44	<0.1	trans-1,3-Dichloropropene	<0.45	<0.1
Ethanol	<7.5	<4	Toluene	<7.5	<2
Acrolein	<0.11	<0.05	1,1,2-Trichloroethane	<0.055	<0.01
Pentane	<5.9	<2	2-Hexanone	<4.1	<1
Trichlorofluoromethane	<2.2	<0.4	Tetrachloroethene	<6.8	<1
Acetone	<4.8	<2	Dibromochloromethane	<0.085	<0.01
2-Propanol	<8.6	<3.5	1,2-Dibromoethane (EDB)	<0.077	<0.01
1,1-Dichloroethene	<0.4	<0.1	Chlorobenzene	<0.46	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1	Ethylbenzene	<0.43	<0.1
Methylene chloride	<35	<10	1,1,2,2-Tetrachloroethane	<0.14	<0.02
t-Butyl alcohol (TBA)	<12	<4	Nonane	<5.2	<1
3-Chloropropene	<3.1	<1	Isopropylbenzene	<9.8	<2
CFC-113	<1.5	<0.2	2-Chlorotoluene	<5.2	<1
Carbon disulfide	<6.2	<2	Propylbenzene	<4.9	<1
Methyl t-butyl ether (MTBE)	<7.2	<2	4-Ethyltoluene	<4.9	<1
Vinyl acetate	<7	<2	m,p-Xylene	<0.87	<0.2
1,1-Dichloroethane	<0.4	<0.1	o-Xylene	<0.43	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1	Styrene	<0.85	<0.2
Hexane	<3.5	<1	Bromoform	<2.1	<0.2
Chloroform	<0.049	<0.01	Benzyl chloride	<0.052	<0.01
Ethyl acetate	<7.2	<2	1,3,5-Trimethylbenzene	<4.9	<1
Tetrahydrofuran	<0.88	<0.3	1,2,4-Trimethylbenzene	<4.9	<1
2-Butanone (MEK)	<5.9	<2	1,3-Dichlorobenzene	<0.6	<0.1
1,2-Dichloroethane (EDC)	<0.04	<0.01	1,4-Dichlorobenzene	<0.23	<0.038
1,1,1-Trichloroethane	<0.55	<0.1	1,2-Dichlorobenzene	<0.6	<0.1
Carbon tetrachloride	<0.31	<0.05	1,2,4-Trichlorobenzene	<0.74	<0.1
Benzene	<0.32	<0.1	Naphthalene	<0.26	<0.05
Cyclohexane	<6.9	<2	Hexachlorobutadiene	<0.21 k	<0.02 k

Date of Report: 09/12/24
Date Received: 08/28/24
Project: TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469
Date Extracted: 09/03/24
Date Analyzed: 09/05/24

RESULTS FROM THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Results Reported as % Helium

Sample ID Laboratory ID	Helium
TWA-SV-42-082724 408469-01	<0.6
TWA-SV-41-082724 408469-02	<0.6
TWA-SV-44-082724 408469-03	<0.6
TWA-SV-DUP-082724 408469-04	<0.6
TWA-SV-45-082724 408469-05	<0.6
TWA-SV-43-082724 408469-06	<0.6
TWA-SV-48-082724 408469-07	<0.6
TWA-SV-47-082724 408469-08	<0.6
TWA-SV-46-082724 408469-09	<0.6
Method Blank O4-2105 MB 09-05-24 13:55	<0.6

Date of Report: 09/12/24
Date Received: 08/28/24
Project: TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 408367-01 1/5.6 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	500	470	6
APH EC9-12 aliphatics	ug/m3	<140	<140	nm
APH EC9-10 aromatics	ug/m3	<140	<140	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	73	70-130
APH EC9-12 aliphatics	ug/m3	67	90	70-130
APH EC9-10 aromatics	ug/m3	67	97	70-130

Date of Report: 09/12/24
Date Received: 08/28/24
Project: TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 408367-01 1/5.6 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Propene	ug/m3	<7.7	<7.7	nm
Dichlorodifluoromethane	ug/m3	14,000	13,000	7
Chloromethane	ug/m3	<21	<21	nm
F-114	ug/m3	<12	<12	nm
Vinyl chloride	ug/m3	<1.4	<1.4	nm
1,3-Butadiene	ug/m3	<0.25	<0.25	nm
Butane	ug/m3	<27	<27	nm
Bromomethane	ug/m3	<22	<22	nm
Chloroethane	ug/m3	<15	<15	nm
Vinyl bromide	ug/m3	<2.4	<2.4	nm
Ethanol	ug/m3	69	64	8
Acrolein	ug/m3	<0.64	<0.64	nm
Pentane	ug/m3	<33	<33	nm
Trichlorofluoromethane	ug/m3	130	120	8
Acetone	ug/m3	<27	<27	nm
2-Propanol	ug/m3	<48	<48	nm
1,1-Dichloroethene	ug/m3	<2.2	<2.2	nm
trans-1,2-Dichloroethene	ug/m3	<2.2	<2.2	nm
Methylene chloride	ug/m3	<190	<190	nm
t-Butyl alcohol (TBA)	ug/m3	<68	<68	nm
3-Chloropropene	ug/m3	<18	<18	nm
CFC-113	ug/m3	<8.6	<8.6	nm
Carbon disulfide	ug/m3	<35	<35	nm
Methyl t-butyl ether (MTBE)	ug/m3	<40	<40	nm
Vinyl acetate	ug/m3	<39	<39	nm
1,1-Dichloroethane	ug/m3	<2.3	<2.3	nm
cis-1,2-Dichloroethene	ug/m3	<2.2	<2.2	nm
Hexane	ug/m3	<20	<20	nm
Chloroform	ug/m3	1.3	1.3	0
Ethyl acetate	ug/m3	<40	<40	nm
Tetrahydrofuran	ug/m3	5.3	6.0	12
2-Butanone (MEK)	ug/m3	<33	<33	nm
1,2-Dichloroethane (EDC)	ug/m3	<0.23	<0.23	nm
1,1,1-Trichloroethane	ug/m3	<3.1	<3.1	nm
Carbon tetrachloride	ug/m3	<1.8	<1.8	nm
Benzene	ug/m3	<1.8	<1.8	nm
Cyclohexane	ug/m3	<39	<39	nm
1,2-Dichloropropane	ug/m3	<1.3	<1.3	nm
1,4-Dioxane	ug/m3	<2	<2	nm
2,2,4-Trimethylpentane	ug/m3	<26	<26	nm

Date of Report: 09/12/24
Date Received: 08/28/24
Project: TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 408367-01 1/5.6 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Methyl methacrylate	ug/m3	<23	<23	nm
Heptane	ug/m3	<23	<23	nm
Bromodichloromethane	ug/m3	<0.38	<0.38	nm
Trichloroethene	ug/m3	<0.6	<0.6	nm
cis-1,3-Dichloropropene	ug/m3	<5.1	<5.1	nm
4-Methyl-2-pentanone	ug/m3	<46	<46	nm
trans-1,3-Dichloropropene	ug/m3	<2.5	<2.5	nm
Toluene	ug/m3	<42	<42	nm
1,1,2-Trichloroethane	ug/m3	<0.31	<0.31	nm
2-Hexanone	ug/m3	<23	<23	nm
Tetrachloroethene	ug/m3	<38	<38	nm
Dibromochloromethane	ug/m3	<0.48	<0.48	nm
1,2-Dibromoethane (EDB)	ug/m3	<0.43	<0.43	nm
Chlorobenzene	ug/m3	<2.6	<2.6	nm
Ethylbenzene	ug/m3	<2.4	<2.4	nm
1,1,2,2-Tetrachloroethane	ug/m3	<0.77	<0.77	nm
Nonane	ug/m3	<29	<29	nm
Isopropylbenzene	ug/m3	<55	<55	nm
2-Chlorotoluene	ug/m3	<29	<29	nm
Propylbenzene	ug/m3	<28	<28	nm
4-Ethyltoluene	ug/m3	<28	<28	nm
m,p-Xylene	ug/m3	8.0	8.1	1
o-Xylene	ug/m3	3.8	3.8	0
Styrene	ug/m3	<4.8	<4.8	nm
Bromoform	ug/m3	<12	<12	nm
Benzyl chloride	ug/m3	<0.29	<0.29	nm
1,3,5-Trimethylbenzene	ug/m3	<28	<28	nm
1,2,4-Trimethylbenzene	ug/m3	<28	<28	nm
1,3-Dichlorobenzene	ug/m3	<3.4	<3.4	nm
1,4-Dichlorobenzene	ug/m3	6.9	7.2	4
1,2-Dichlorobenzene	ug/m3	<3.4	<3.4	nm
1,2,4-Trichlorobenzene	ug/m3	<4.2	<4.2	nm
Naphthalene	ug/m3	2.7	3.2	17
Hexachlorobutadiene	ug/m3	<1.2	<1.2	nm

Date of Report: 09/12/24
Date Received: 08/28/24
Project: TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Propene	ug/m3	23	99	70-130
Dichlorodifluoromethane	ug/m3	67	116	70-130
Chloromethane	ug/m3	28	98	70-130
F-114	ug/m3	94	115	70-130
Vinyl chloride	ug/m3	35	110	70-130
1,3-Butadiene	ug/m3	30	103	70-130
Butane	ug/m3	32	110	70-130
Bromomethane	ug/m3	52	112	70-130
Chloroethane	ug/m3	36	111	70-130
Vinyl bromide	ug/m3	59	110	70-130
Ethanol	ug/m3	25	94	70-130
Acrolein	ug/m3	31	110	70-130
Pentane	ug/m3	40	102	70-130
Trichlorofluoromethane	ug/m3	76	119	70-130
Acetone	ug/m3	32	107	70-130
2-Propanol	ug/m3	33	107	70-130
1,1-Dichloroethene	ug/m3	54	112	70-130
trans-1,2-Dichloroethene	ug/m3	54	110	70-130
Methylene chloride	ug/m3	94	110	70-130
t-Butyl alcohol (TBA)	ug/m3	41	110	70-130
3-Chloropropene	ug/m3	42	109	70-130
CFC-113	ug/m3	100	118	70-130
Carbon disulfide	ug/m3	42	106	70-130
Methyl t-butyl ether (MTBE)	ug/m3	49	103	70-130
Vinyl acetate	ug/m3	48	103	70-130
1,1-Dichloroethane	ug/m3	55	114	70-130
cis-1,2-Dichloroethene	ug/m3	54	109	70-130
Hexane	ug/m3	48	104	70-130
Chloroform	ug/m3	66	116	70-130
Ethyl acetate	ug/m3	49	116	70-130
Tetrahydrofuran	ug/m3	40	105	70-130
2-Butanone (MEK)	ug/m3	40	109	70-130
1,2-Dichloroethane (EDC)	ug/m3	55	117	70-130
1,1,1-Trichloroethane	ug/m3	74	117	70-130
Carbon tetrachloride	ug/m3	85	116	70-130
Benzene	ug/m3	43	108	70-130
Cyclohexane	ug/m3	46	95	70-130
1,2-Dichloropropane	ug/m3	62	107	70-130
1,4-Dioxane	ug/m3	49	109	70-130
2,2,4-Trimethylpentane	ug/m3	63	107	70-130

Date of Report: 09/12/24
Date Received: 08/28/24
Project: TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Methyl methacrylate	ug/m3	55	103	70-130
Heptane	ug/m3	55	107	70-130
Bromodichloromethane	ug/m3	90	112	70-130
Trichloroethene	ug/m3	73	113	70-130
cis-1,3-Dichloropropene	ug/m3	61	111	70-130
4-Methyl-2-pentanone	ug/m3	55	123	70-130
trans-1,3-Dichloropropene	ug/m3	61	112	70-130
Toluene	ug/m3	51	109	70-130
1,1,2-Trichloroethane	ug/m3	74	112	70-130
2-Hexanone	ug/m3	55	109	70-130
Tetrachloroethene	ug/m3	92	114	70-130
Dibromochloromethane	ug/m3	120	115	70-130
1,2-Dibromoethane (EDB)	ug/m3	100	114	70-130
Chlorobenzene	ug/m3	62	116	70-130
Ethylbenzene	ug/m3	59	109	70-130
1,1,2,2-Tetrachloroethane	ug/m3	93	115	70-130
Nonane	ug/m3	71	108	70-130
Isopropylbenzene	ug/m3	66	111	70-130
2-Chlorotoluene	ug/m3	70	112	70-130
Propylbenzene	ug/m3	66	113	70-130
4-Ethyltoluene	ug/m3	66	107	70-130
m,p-Xylene	ug/m3	120	111	70-130
o-Xylene	ug/m3	59	116	70-130
Styrene	ug/m3	58	118	70-130
Bromoform	ug/m3	140	118	70-130
Benzyl chloride	ug/m3	70	121	70-130
1,3,5-Trimethylbenzene	ug/m3	66	112	70-130
1,2,4-Trimethylbenzene	ug/m3	66	108	70-130
1,3-Dichlorobenzene	ug/m3	81	120	70-130
1,4-Dichlorobenzene	ug/m3	81	119	70-130
1,2-Dichlorobenzene	ug/m3	81	121	70-130
1,2,4-Trichlorobenzene	ug/m3	100	115	70-130
Naphthalene	ug/m3	71	108	70-130
Hexachlorobutadiene	ug/m3	140	120	70-130

Date of Report: 09/12/24
Date Received: 08/28/24
Project: TWAAFA:Potter Addnl Data Gaps M0615.20.013, F&BI 408469

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR HELIUM USING METHOD ASTM D1946

Laboratory Code: (Duplicate)

Analyte	Sample Result (%)	Duplicate Result (%)	Relative Percent Difference	Acceptance Criteria
Helium	<0.6	<0.6	nm	0-20

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

408469

SAMPLE CHAIN OF CUSTODY 08/28/24

Page # 1 of 2

Report To Audrey Hackett
Company Maul Foster & Alongi
Address 2815 2nd Ave, Suite 540
City, State, ZIP Seattle, WA 98121
Phone 206-331-1835 Email ahackett@maulfoster.com

SAMPLERS (*signature*): Amanda Bixby

PROJECT NAME & ADDRESS: TWAAFA: Potter Addnl Data Gaps

PO # M0615.20.013

NOTES: Tedlar bags included for each sample.

INVOICE TO accounting@maulfoster.com

TURNAROUND TIME
☒ Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	VOCs TO15 ~~Full Scan~~	TO15 BTEXN	APH	Chlorinated VOCs	Helium	Methane, oxygen, carbon dioxide by EPA 3C	Notes
TWA-SV-42-082724	01A-B	3312	71	IA / (SG)	8/27/24	28.5	1109	-5	1114	X		X		X	X	
TWA-SV-41-082724	02	2296	62	IA / (SG)	8/27/24	30	1142	-5	1147	X		X		X	X	
TWA-SV-44-082724	03	2302	280	IA / (SG)	8/27/24	29.5	1238	-5	1244	X		X		X	X	
TWA-SV-DUP-082724	04	8098	75	IA / (SG)	8/27/24	30+	1238	-5	1244	X		X		X	X	
TWA-SV-45-082724	05	2294	63	IA / (SG)	8/27/24	30+	1330	-5	1335	X		X		X	X	
TWA-SV-43-082724	06	3252	244	IA / (SG)	8/27/24	29	1423	-5	1428	X		X		X	X	
TWA-SV-48-082724	07	1538	54	IA / (SG)	8/27/24	30+	1550	-5	1555	X		X		X	X	
TWA-SV-47-082724	08	3387	77	IA / (SG)	8/27/24	30	1633	-5	1638	X		X		X	X	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amanda Bixby	Amanda Bixby	MFA	8/28/24	0930
Received by: Nhan Pham	Nhan Pham	FEBI	8/28/24	0930
Relinquished by:		Samples received at 21 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

408469

SAMPLE CHAIN OF CUSTODY 08/28/24

Page # 2 of 2

Report To Audrey Hackett
Company Maul Foster & Alongi
Address 2815 2nd Ave, Suite 540
City, State, ZIP Seattle, WA 98121
Phone 206-331-1835 Email ahackett@maulfoster.com

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: TWAAFA: Potter Addn'l Data Gaps

PO # M0615.20.013

NOTES: Tedlar bags included for each sample.

INVOICE TO accounting@maulfoster.com

TURNAROUND TIME
☒ Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	VOCs TO15 ~~Full Scan~~	TO15 BTEXN	APH	Chlorinated VOCs	Helium	Methane, oxygen, & carbon dioxide EPA 3C	Notes
TWA-SV-~~48~~-0827~~24~~ 46 per AB 8/28/24 ME	409A-B	9899	G1	IA (SG)	8/27/24	30+	1721	5	1726	X		X		X	X	
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Bixby	MFA	8/28/24	0930
Received by:	Nham Pham	FCBI	8/28/24	0930
Relinquished by:		Samples received at 21 °C		
Received by:				

FORMS\COC\COCTO-15.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 408469 CLIENT MFA INITIALS/ DATE: (NP) 8/28/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 21 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☐ YES ☑ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: AP 08/28/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ~~☐ YES~~ AP ☑ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	~~☐ Yes~~ AP ☑ No	label and COC ~~Label~~ TWA-SV-4Q-082724(09A-B)	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No		☐ Not on COC/label
Time Sampled	☑ Yes ☐ No		☐ Not on COC/label
# of Containers	☑ Yes ☐ No		
Relinquished	☑ Yes ☐ No		
Requested analysis	☑ Yes ☐ On Hold		

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☐ NA ☑ YES ☐ NO

Number of unused TO15 canisters 01 (SN3676) Number of unused TO17 tubes _____

3600 Fremont Ave N
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Friedman & Bruya
Michael Erdahl
5500 4th Ave S
Seattle, WA 98108

RE: 408469,
Work Order Number: 2408481

September 04, 2024

Attention Michael Erdahl:

Fremont Analytical, Inc, an Alliance Technical Group company, received 9 sample(s) on 8/28/2024 for the analyses presented in the following report.

Major Gases by EPA Method 3C

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes
Project Manager

Date: *09/04/2024*

CLIENT: Friedman & Bruya
Project: 408469
Work Order: 2408481

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2408481-001	TWA-SV-42-082724	08/27/2024 11:14 AM	08/28/2024 10:40 AM
2408481-002	TWA-SV-41-082724	08/27/2024 11:47 AM	08/28/2024 10:40 AM
2408481-003	TWA-SV-44-082724	08/27/2024 12:44 PM	08/28/2024 10:40 AM
2408481-004	TWA-SV-DUP-082724	08/27/2024 12:44 PM	08/28/2024 10:40 AM
2408481-005	TWA-SV-45-082724	08/27/2024 1:35 PM	08/28/2024 10:40 AM
2408481-006	TWA-SV-43-082724	08/27/2024 2:28 PM	08/28/2024 10:40 AM
2408481-007	TWA-SV-48-082724	08/27/2024 3:55 PM	08/28/2024 10:40 AM
2408481-008	TWA-SV-47-082724	08/27/2024 4:38 PM	08/28/2024 10:40 AM
2408481-009	TWA-SV-46-082724	08/27/2024 5:26 PM	08/28/2024 10:40 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **2408481**

Date: **9/4/2024**

CLIENT: Friedman & Bruya
Project: 408469

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Major gases are reported as % ratio of the Major Gases analyzed (Carbon dioxide, Carbon Monoxide, Methane, Nitrogen, Oxygen and Hydrogen).

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS). The LCS is processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Note: The estimated BTU calculation is based off of the methane result.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MCL - Maximum Contaminant Level
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Friedman & Bruya
Project: 408469

Lab ID: 2408481-001 **Collection Date:** 8/27/2024 11:14:00 AM
Client Sample ID: **TWA-SV-42-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	2.99	0.0500		%	1	8/28/2024 12:48:00 PM
Methane	ND	0.0500		%	1	8/28/2024 12:48:00 PM
Oxygen	18.6	0.0500		%	1	8/28/2024 12:48:00 PM

Lab ID: 2408481-002 **Collection Date:** 8/27/2024 11:47:00 AM
Client Sample ID: **TWA-SV-41-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	0.188	0.0500		%	1	8/28/2024 1:00:00 PM
Methane	ND	0.0500		%	1	8/28/2024 1:00:00 PM
Oxygen	16.8	0.0500		%	1	8/28/2024 1:00:00 PM

Lab ID: 2408481-003 **Collection Date:** 8/27/2024 12:44:00 PM
Client Sample ID: **TWA-SV-44-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	2.61	0.0500		%	1	8/28/2024 1:36:00 PM
Methane	ND	0.0500		%	1	8/28/2024 1:36:00 PM
Oxygen	19.9	0.0500		%	1	8/28/2024 1:36:00 PM

CLIENT: Friedman & Bruya
Project: 408469

Lab ID: 2408481-004 **Collection Date:** 8/27/2024 12:44:00 PM
Client Sample ID: **TWA-SV-DUP-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	2.60	0.0500		%	1	8/28/2024 1:55:00 PM
Methane	ND	0.0500		%	1	8/28/2024 1:55:00 PM
Oxygen	20.0	0.0500		%	1	8/28/2024 1:55:00 PM

Lab ID: 2408481-005 **Collection Date:** 8/27/2024 1:35:00 PM
Client Sample ID: **TWA-SV-45-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	3.71	0.0500		%	1	8/28/2024 2:13:00 PM
Methane	ND	0.0500		%	1	8/28/2024 2:13:00 PM
Oxygen	17.8	0.0500		%	1	8/28/2024 2:13:00 PM

Lab ID: 2408481-006 **Collection Date:** 8/27/2024 2:28:00 PM
Client Sample ID: **TWA-SV-43-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	3.92	0.0500		%	1	8/28/2024 2:27:00 PM
Methane	ND	0.0500		%	1	8/28/2024 2:27:00 PM
Oxygen	17.4	0.0500		%	1	8/28/2024 2:27:00 PM

CLIENT: Friedman & Bruya
Project: 408469

Lab ID: 2408481-007 **Collection Date:** 8/27/2024 3:55:00 PM
Client Sample ID: **TWA-SV-48-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	0.887	0.0500		%	1	8/28/2024 2:40:00 PM
Methane	ND	0.0500		%	1	8/28/2024 2:40:00 PM
Oxygen	21.5	0.0500		%	1	8/28/2024 2:40:00 PM

Lab ID: 2408481-008 **Collection Date:** 8/27/2024 4:38:00 PM
Client Sample ID: **TWA-SV-47-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	0.915	0.0500		%	1	8/28/2024 3:04:00 PM
Methane	ND	0.0500		%	1	8/28/2024 3:04:00 PM
Oxygen	21.6	0.0500		%	1	8/28/2024 3:04:00 PM

Lab ID: 2408481-009 **Collection Date:** 8/27/2024 5:26:00 PM
Client Sample ID: **TWA-SV-46-082724** **Matrix:** Air

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Major Gases by EPA Method 3C				Batch ID: R94105		Analyst: CO
Carbon Dioxide	0.694	0.0500		%	1	8/28/2024 3:24:00 PM
Methane	ND	0.0500		%	1	8/28/2024 3:24:00 PM
Oxygen	21.7	0.0500		%	1	8/28/2024 3:24:00 PM

Work Order: 2408481
CLIENT: Friedman & Bruya
Project: 408469

QC SUMMARY REPORT

Major Gases by EPA Method 3C

Sample ID: **LCS-R94105** SampType: **LCS** Units: **%** Prep Date: **8/28/2024** RunNo: **94105**
Client ID: **LCSW** Batch ID: **R94105** Analysis Date: **8/28/2024** SeqNo: **1965512**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	99.7	0.0500	100.0	0	99.7	90	110				
Methane	99.8	0.0500	100.0	0	99.8	90	110				
Oxygen	100	0.0500	100.0	0	100	90	110				

Sample ID: **2408480-001AREP** SampType: **REP** Units: **%** Prep Date: **8/28/2024** RunNo: **94105**
Client ID: **BATCH** Batch ID: **R94105** Analysis Date: **8/28/2024** SeqNo: **1965500**

Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	1.17	0.0800						1.174	0.358	30	D
Methane	ND	0.0800						0		30	D
Oxygen	21.8	0.0800						21.60	0.722	30	D

Sample Log-In Check List

Client Name:	FB	Work Order Number:	2408481
Logged by:	Morgan Wilson	Date Received:	8/28/2024 10:40:00 AM

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
4.	Was an attempt made to cool the samples?	Yes ☐	No ☐	NA ☑
5.	Were all items received at a temperature of >2°C to 6°C *	Yes ☐	No ☐	NA ☑
6.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
7.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8.	Are samples properly preserved?	Yes ☑	No ☐	
9.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
11.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
12.	Does paperwork match bottle labels?	Yes ☑	No ☐	
13.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14.	Is it clear what analyses were requested?	Yes ☑	No ☐	
15.	Were all hold times (except field parameters, pH e.g.) able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

Item Information

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

SUBCONTRACT SAMPLE CHAIN OF CUSTODY 2408481

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 5500 4th Ave S

City, State, ZIP Seattle, WA 98108

Phone # (206) 285-8282 merdahl@friedmanandbruya.com

SUBCONTRACTER
Alliance Technical Group

PROJECT NAME/NO.	PO #
408469	E-379

REMARKS

EQuIS 4

TURNAROUND TIME
☒ Standard TAT
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Dispose after 30 days
Return samples
Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Matrix	# of jars	ANALYSES REQUESTED: major gases										Notes
TWA-SV-42-082724		8/27/2024	1114	air	1	x										CH4, CO2, O2
TWA-SV-41-082724		8/27/2024	1147	air	1	x										CH4, CO2, O2
TWA-SV-44-082724		8/27/2024	1244	air	1	x										CH4, CO2, O2
TWA-SV-DUP-082724		8/27/2024	1244	air	1	x										CH4, CO2, O2
TWA-SV-45-082724		8/27/2024	1335	air	1	x										CH4, CO2, O2
TWA-SV-43-082724		8/27/2024	1428	air	1	x										CH4, CO2, O2
TWA-SV-48-082724		8/27/2024	1555	air	1	x										CH4, CO2, O2
TWA-SV-47-082724		8/27/2024	1638	air	1	x										CH4, CO2, O2
TWA-SV-46-082724		8/27/2024	1726	air	1	x										CH4, CO2, O2

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	8/28/24	0952
Received by:		Nathan Kotter	ATG	8/28/24	1040
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

September 25, 2024

Audrey Hackett, Project Manager
Maul Foster Alongi
2815 2nd Ave, Suite 540
Seattle, WA 98121

Dear Ms Hackett:

Included are the additional results from the testing of material submitted on August 28, 2024 from the TWAAFA: PotterAddnl Data Gaps M0615.20.013, F&BI 408469 project. There are 9 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
MFA0925R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on August 28, 2024 by Friedman & Bruya, Inc. from the Maul Foster Alongi TWAAFA: PotterAddnl Data Gaps M0615.20.013, F&BI 408469 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Maul Foster Alongi
408469 -01	TWA-SV-42-082724
408469 -02	TWA-SV-41-082724
408469 -03	TWA-SV-44-082724
408469 -04	TWA-SV-DUP-082724
408469 -05	TWA-SV-45-082724
408469 -06	TWA-SV-43-082724
408469 -07	TWA-SV-48-082724
408469 -08	TWA-SV-47-082724
408469 -09	TWA-SV-46-082724

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-42-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-01 1/16
Date Analyzed:	09/12/24	Data File:	091215.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3	ppbv
Trichloroethene	<1.7	<0.32
Tetrachloroethene	840	120

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-41-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-02 1/240
Date Analyzed:	09/12/24	Data File:	091217.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3	ppbv
Trichloroethene	100	19
Tetrachloroethene	7,900	1,200

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-44-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-03 1/240
Date Analyzed:	09/12/24	Data File:	091218.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	87	70	130

Compounds:	Concentration ug/m3	ppbv
Trichloroethene	1,200	220
Tetrachloroethene	10,000	1,500

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-DUP-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-04 1/230
Date Analyzed:	09/12/24	Data File:	091219.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	84	70	130

Compounds:	Concentration ug/m3	ppbv
Trichloroethene	1,200	220
Tetrachloroethene	10,000	1,500

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	TWA-SV-45-082724	Client:	Maul Foster Alongi
Date Received:	08/28/24	Project:	M0615.20.013, F&BI 408469
Date Collected:	08/27/24	Lab ID:	408469-05 1/41
Date Analyzed:	09/12/24	Data File:	091216.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	86	70	130

Compounds:	Concentration ug/m3	ppbv
Trichloroethene	<4.4	<0.82
Tetrachloroethene	2,000	290

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	Maul Foster Alongi
Date Received:	Not Applicable	Project:	M0615.20.013, F&BI 408469
Date Collected:	Not Applicable	Lab ID:	04-2131 MB
Date Analyzed:	09/12/24	Data File:	091211.D
Matrix:	Air	Instrument:	GCMS7
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3	ppbv
Trichloroethene	<0.11	<0.02
Tetrachloroethene	<6.8	<1

Date of Report: 09/25/24
Date Received: 08/28/24
Project: TWAAFA: PotterAddnl Data Gaps M0615.20.013, F&BI 408469

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 409098-01 1/8.4 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Trichloroethene	ug/m3	<0.9	<0.9	nm
Tetrachloroethene	ug/m3	3,900	4,200	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Trichloroethene	ug/m3	73	120	70-130
Tetrachloroethene	ug/m3	92	129	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

408469

SAMPLE CHAIN OF CUSTODY 08/28/24

Page # 1 of 2

Report To Audrey Hackett
Company Maul Foster & Alongi
Address 2815 2nd Ave, Suite 540
City, State, ZIP Seattle, WA 98121
Phone 206-331-1835 Email ahackett@maulfoster.com

SAMPLERS (*signature*): Amanda Bixby

PROJECT NAME & ADDRESS: TWAAFA: Potter Addnl Data Gaps

PO # M0615.20.013

NOTES: Tedlar bags included for each sample.

INVOICE TO accounting@maulfoster.com

TURNAROUND TIME
☒ Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	VOCs TO15 ~~Full Scan~~	TO15 BTEXN	APH	Chlorinated VOCs	Helium	Methane, oxygen, carbon dioxide by EPA 3C	Notes
TWA-SV-42-082724	01A-B	3312	71	IA / (SG)	8/27/24	28.5	1109	-5	1114	X		X		X	X	
TWA-SV-41-082724	02	2296	62	IA / (SG)	8/27/24	30	1142	-5	1147	X		X		X	X	
TWA-SV-44-082724	03	2302	280	IA / (SG)	8/27/24	29.5	1238	-5	1244	X		X		X	X	
TWA-SV-DUP-082724	04	8098	75	IA / (SG)	8/27/24	30+	1238	-5	1244	X		X		X	X	
TWA-SV-45-082724	05	2294	63	IA / (SG)	8/27/24	30+	1330	-5	1335	X		X		X	X	
TWA-SV-43-082724	06	3252	244	IA / (SG)	8/27/24	29	1423	-5	1428	X		X		X	X	
TWA-SV-48-082724	07	1538	54	IA / (SG)	8/27/24	30+	1550	-5	1555	X		X		X	X	
TWA-SV-47-082724	08	3387	77	IA / (SG)	8/27/24	30	1633	-5	1638	X		X		X	X	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Amanda Bixby	Amanda Bixby	MFA	8/28/24	0930
Received by: Nhan Pham	Nhan Pham	FEBI	8/28/24	0930
Relinquished by:		Samples received at 21 °C		
Received by:				

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

408469

SAMPLE CHAIN OF CUSTODY 08/28/24

Page # 2 of 2

Report To Audrey Hackett
Company Maul Foster & Alongi
Address 2815 2nd Ave, Suite 540
City, State, ZIP Seattle, WA 98121
Phone 206-331-1835 Email ahackett@maulfoster.com

SAMPLERS (*signature*)

PROJECT NAME & ADDRESS: TWAAFA: Potter Addn'l Data Gaps

PO # M0615.20.013

NOTES: Tedlar bags included for each sample.

INVOICE TO accounting@maulfoster.com

TURNAROUND TIME
☒ Standard
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply):

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	VOCs TO15 ~~Full Scan~~	TO15 BTEXN	APH	Chlorinated VOCs	Helium	Methane, oxygen, & carbon dioxide EPA 3C	Notes
TWA-SV-~~48~~-0827~~24~~ 46 per AB 8/28/24 ME	409A-B	9899	G1	IA (SG)	8/27/24	30+	1721	5	1726	X		X		X	X	
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												
				IA / SG												

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Amanda Bixby	MFA	8/28/24	0930
Received by:	Nham Pham	FCBI	8/28/24	0930
Relinquished by:		Samples received at 21 °C		
Received by:				

FORMS\COC\COCTO-15.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 408469 CLIENT MFA INITIALS/ DATE: (NP) 8/28/24

If custody seals are present on cooler, are they intact? ☑ NA ☐ YES ☐ NO

Cooler/Sample temperature 21 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☐ YES ☑ NO

How did samples arrive?
☑ Over the Counter ☐ Picked up by F&BI ☐ FedEx/UPS/GSO

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO Initials/ Date: AP 08/28/24
*or other representative documents, letters, and/or shipping memos

Number of days samples have been sitting prior to receipt at laboratory 1 days

Are the samples clearly identified? (explain "no" answer below) ~~☐ YES~~ AP ☑ NO

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Is the following information provided on the COC, and does it match the sample label?
(explain "no" answer below)

Sample ID's	~~☐ Yes~~ AP ☑ No	label and COC ~~Label~~ TWA-SV-4Q-082724(09A-B)	☐ Not on COC/label
Date Sampled	☑ Yes ☐ No		☐ Not on COC/label
Time Sampled	☑ Yes ☐ No		☐ Not on COC/label
# of Containers	☑ Yes ☐ No		
Relinquished	☑ Yes ☐ No		
Requested analysis	☑ Yes ☐ On Hold		

Other comments (use a separate page if needed)

Air Samples: Were any additional canisters/tubes received? ☐ NA ☑ YES ☐ NO

Number of unused TO15 canisters 01 (SN3676) Number of unused TO17 tubes _____

Attachment D

Data Validation Memorandum

MAUL FOSTER ALONGI

Data Validation Memorandum

Project No. M0615.20.013 | October 1, 2024 | Port of Tacoma

Maul Foster & Alongi, Inc. (MFA), conducted an independent review of the quality of analytical results for soil vapor, passive soil vapor, and associated quality control samples collected at the former Potter Property, located at 1801 Alexander Avenue in Tacoma, Washington. The soil vapor samples were collected on August 27, 2024, and the passive soil vapor samples were deployed on August 13, 2024, and retrieved on August 27, 2024.

Friedman & Bruya, Inc. (F&B), Alliance Technical Group (ATG) (formerly Fremont Analytical, Inc.), and Beacon Environmental (BEA) performed the analyses. MFA reviewed F&B reports 408469 report 408469-additional and BEA report 7984. Portions of the samples submitted to FBI were subcontracted to ATG for analysis and the results are appended to report 408469.

The analyses performed and the samples analyzed are listed in the following tables. Not all analyses were performed on all samples.

Analysis	Reference
Aliphatic and aromatic compounds	MA-APH
Helium	ASTM D1946
Major gases	EPA 3C
Volatile organic compounds (soil vapor)	EPA TO-15
Volatile organic compounds (passive soil vapor)	EPA TO-17

Notes
APH = air-phase hydrocarbons.
ASTM = ASTM International.
EPA = U.S. Environmental Protection Agency.
MA = Massachusetts Department of Environmental Protection
TO = toxic organics.

Samples Analyzed			
Report 408469/408469 additional		**Report 7984**	
TWA-SV-42-082724	TWA-SV-43-082724	Trip 1	TWA-PSV-05
TWA-SV-41-082724	TWA-SV-48-082724	TWA-PSV-01	TWA-PSV-05-DUP
TWA-SV-44-082724	TWA-SV-47-082724	TWA-PSV-02	--
TWA-SV-DUP-082724	TWA-SV-46-082724	TWA-PSV-03	--
TWA-SV-45-082724	--	TWA-PSV-04	--

Data Validation Procedures

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020) and appropriate laboratory- and method-specific guidelines (ATG 2023, BEA 2024, EPA 1986, F&B 2022).

Data validation procedures were modified, as appropriate, to accommodate quality control requirements for methods that EPA data review guidelines do not specifically address (e.g., ASTM International).

Based on the data quality assurance/quality control review described herein, the data, with the appropriate final data qualifiers assigned, are considered acceptable for their intended use. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, and data qualifiers assigned by the reviewer during validation.

Final data qualifiers:

- U = result is non-detect at the method reporting limit (MRL).
- UJ = result is non-detect with an estimated MRL.

General Qualifications

According to report 7984, BEA determined uptake rates for a suite of EPA Method TO-17 volatile organic compounds with the Beacon sampler for sampling in air and calculated the uptake rates for the remaining compounds using Graham's Law of Diffusion. The reviewer confirmed that these compounds are appropriately flagged in the report. No qualification was required.

According to report 7984, BEA provided summaries of total aliphatics (C5-C8), total aliphatics (C9-C12), and total aromatics (C9-C10) with each set of EPA Method TO-17 results. The reviewer confirmed that BEA calculated these results using the EPA Method TO-17 instrument response and that aliphatic and aromatic hydrocarbon summaries were not similarly calculated for the associated batch quality control samples. The reviewer could not evaluate aliphatic and aromatic hydrocarbon results based on batch precision or accuracy. No qualification was required.

Sample Conditions

Sample Custody

Sample custody was appropriately documented on the chain-of-custody (COC) form accompanying the reports.

The reviewer confirmed that the gap in custody on the COC form accompanying report 7984 is due to shipment via a third-party service.

Holding Times

Extractions and analyses were performed within the recommended holding times.

Preservation and Sample Storage

The samples were preserved and stored appropriately.

Soil Vapor Collection

The reviewer confirmed that soil vapor samples were collected under a helium shroud to detect leaks in the collection system. The associated sample results were non-detect for helium by ASTM Method D1946 in report 408469.

Reporting Limits

The laboratory evaluated results to MRLs. BEA labeled MRLs as limits of quantitation. Samples that required dilutions because of high analyte concentrations, matrix interferences, and/or dilutions necessary for preparation and/or analysis were reported with raised MRLs.

Blank Results

Method Blanks

Laboratory method blanks are used to evaluate whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies, in accordance with laboratory- and method-specific requirements.

All laboratory method blank results were non-detect to MRLs.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during shipping and field handling procedures.

A trip blank (Trip 1) was submitted with the sample delivery group 7984 for EPA Method TO-17 analysis. The trip blank was non-detect to MRLs for all target analytes.

Laboratory Control Sample and Laboratory Control Sample Duplicate Results

Laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) results are used to evaluate laboratory precision and accuracy. All LCSs and LCSDs were prepared and analyzed at the required frequency, in accordance with laboratory- and method-specific requirements. Where LCSD results were not reported, laboratory precision was evaluated using laboratory duplicate results. The LCS samples were prepared and analyzed at the required frequency.

All LCS and LCSD results were within acceptance limits for percent recovery and relative percent difference (RPD).

Laboratory Duplicate Results

Laboratory duplicate results are used to evaluate laboratory precision and sample homogeneity. All laboratory duplicate samples were prepared and analyzed at the required frequency, in accordance with laboratory- and method-specific requirements. Where laboratory duplicate results were not reported, laboratory precision was evaluated using LCS and LCSD RPD results.

Laboratory duplicate results greater than five times the MRL were evaluated using laboratory RPD control limits. A secondary criterion was used when laboratory duplicate results were non-detect or less than five times the MRL. Results meet the secondary criterion if the absolute difference of the laboratory duplicate sample result and the parent sample result, or the MRL for non-detects, is equal to or less than the MRL value of the parent sample.

All laboratory duplicate results met the acceptance criteria.

Matrix Spike and Matrix Spike Duplicate Results

Matrix spike (MS) and matrix spike duplicate (MSD) results are used to evaluate laboratory precision, accuracy, and the effect of the sample matrix on sample preparation and target analyte recovery. MS and MSD results were not reported because they were not required for EPA Methods 3C, TO-15, and TO-17 or ASTM Method D1946.

Surrogate Results

Surrogate results are used to evaluate laboratory performance of target organic compounds for individual samples.

F&B did not report surrogate results with EPA Method TO-15 and MA-APH batch quality control sample results. Batch quality control sample results met acceptance criteria for percent recovery and RPD; thus, qualification was not required.

All reported surrogate results were within percent recovery acceptance limits.

Field Duplicate Results

Field duplicate results are used to evaluate field precision and sample homogeneity. The following field duplicate and parent sample pair was submitted for analysis:

Report	Parent Sample	Field Duplicate Sample
408469	TWA-SV-44-082724	TWA-SV-DUP-082724
7984	TWA-PSV-05	TWA-PSV-05-DUP

MFA uses acceptance criteria of 100 percent RPD for results that are less than five times the MRL or 50 percent RPD for results that are greater than five times the MRL. RPD was not evaluated when both results in the sample pair were non-detect. When only one result in the sample pair was non-detect, RPD was evaluated using the MRL of the non-detect result.

All field duplicate results met the RPD acceptance criteria.

Continuing Calibration Verification Results

Continuing calibration verification (CCV) results are used to evaluate instrument sensitivity, precision, and accuracy throughout the analytical sequence.

The reviewer evaluated CCV results flagged by the laboratory for associated CCV exceedances. Surrogate or batch quality control results flagged by the laboratory based on CCV exceedances but meeting percent recovery and/or RPD acceptance criteria did not require qualification by the reviewer. EPA Method TO-17 CCV results reported by BEA met percent recovery acceptance criteria.

According to report 408469, all EPA Method TO-15 hexachlorobutadiene sample results were flagged by F&B due to association with a CCV that exceeded acceptance criteria. The laboratory also indicated that the calibration results were biased high. All associated sample results were non-detect; thus, qualification was not required.

Data Package

The data package was reviewed for transcription errors, omissions, and anomalies.

According to report 408469, the sample name recorded on the COC for TWA-SV-46-082724 was corrected by F&B after samples were received at the request of the MFA project manager. No action was required.

Report 7984 was issued as a data package that included raw sample results, instrument quality control results, and tentatively identified compound results. These results were reviewed by MFA for completeness but were not subject to validation.

No additional issues were found.

References

ATG. 2023. *Quality Assurance*. Rev. 3.7. ATG formerly Fremont Analytical, Inc.: Seattle, WA. April 18.

BEA. 2024. Beacon *Environmental's Quality System Manual*. Beacon Environmental Services, Inc.: Bel Air, Maryland. August 5.

EPA. 1986. *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods.* EPA publication SW-846. 3rd ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), VI phase III (2019), VII phase I (2019), and VII phase II (2020).

EPA. 2020a. *National Functional Guidelines for Inorganic Superfund Methods Data Review.* EPA 542-R-20-006. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation: Washington, DC. November.

EPA. 2020b. *National Functional Guidelines for Organic Superfund Methods Data Review.* EPA 540-R-20-005. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation: Washington, DC. November.

F&B. 2022. *Quality Assurance Manual*. Rev. 18. Friedman & Bruya, Inc.: Seattle, WA. December 9.

Attachment E

Manometer Readings

MAUL FOSTER ALONGI

MAUL FOSTER ALONGI

Attachment E
Manometer Readings in Shop Building
Potter Property—Port of Tacoma
1801 Alexander Avenue, Tacoma, Washington